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* * * * * Welcome to STN International * * * * *

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NEWS 2 NOV 21 CAS patent coverage to include exemplified prophetic
substances identified in English-, French-, German-,
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NEWS 3 NOV 26 MARPAT enhanced with FSORT command
NEWS 4 NOV 26 CHEMSAFE now available on STN Easy
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NEWS 7 DEC 12 GBFULL now offers single source for full-text
coverage of complete UK patent families
NEWS 8 DEC 17 Fifty-one pharmaceutical ingredients added to PS
NEWS 9 JAN 06 The retention policy for unread STNmail messages
will change in 2009 for STN-Columbus and STN-Tokyo
NEWS 10 JAN 07 WPIDS, WPINDEX, and WPIX enhanced Japanese Patent
Classification Data
NEWS 11 FEB 02 Simultaneous left and right truncation (SLART) added
for CERAB, COMPUAB, ELCOM, and SOLIDSTATE
NEWS 12 FEB 02 GENBANK enhanced with SET PLURALS and SET SPELLING
NEWS 13 FEB 06 Patent sequence location (PSL) data added to USGENE
NEWS 14 FEB 10 COMPENDEX reloaded and enhanced
NEWS 15 FEB 11 WTEXTILES reloaded and enhanced

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 12:06:53 ON 13 FEB 2009

=> file reg		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.22	0.22

FILE 'REGISTRY' ENTERED AT 12:07:20 ON 13 FEB 2009
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STRUCTURE FILE UPDATES: 11 FEB 2009 HIGHEST RN 1104680-36-5
DICTIONARY FILE UPDATES: 11 FEB 2009 HIGHEST RN 1104680-36-5

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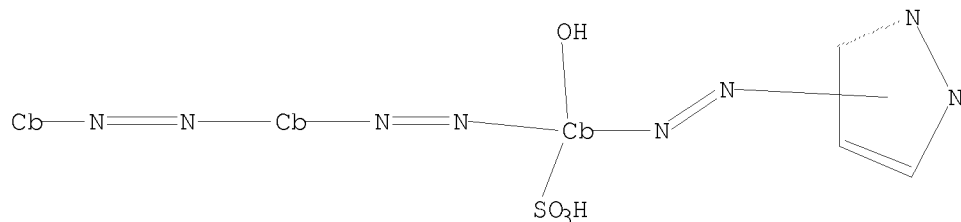
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L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 12:08:23 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 148 TO ITERATE

100.0% PROCESSED 148 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 2231 TO 3689

PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 12:08:36 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 2381 TO ITERATE

100.0% PROCESSED 2381 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

L3 0 SEA SSS FUL L1

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Uploading C:\Program Files\Stnexp\Queries\10579783-broadest-with-lring.str

L4 STRUCTURE UPLOADED

=> d 14

L4 HAS NO ANSWERS

L4 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s 14

SAMPLE SEARCH INITIATED 12:12:33 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 36 TO ITERATE

100.0% PROCESSED 36 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 360 TO 1080

PROJECTED ANSWERS: 0 TO 0

L5 0 SEA SSS SAM L4

=> s 14 full

FULL SEARCH INITIATED 12:12:38 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 612 TO ITERATE

100.0% PROCESSED 612 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

L6 0 SEA SSS FUL L4

=>

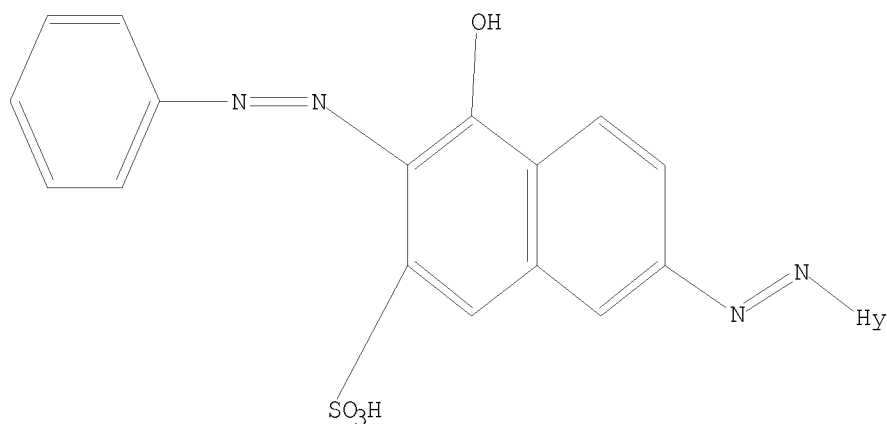
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L7 STRUCTURE UPLOADED

=> d 17

L7 HAS NO ANSWERS

L7 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 17

SAMPLE SEARCH INITIATED 12:15:47 FILE 'REGISTRY'
 SAMPLE SCREEN SEARCH COMPLETED - 1448 TO ITERATE

100.0% PROCESSED 1448 ITERATIONS 7 ANSWERS
 SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
 BATCH **COMPLETE**
 PROJECTED ITERATIONS: 26678 TO 31242
 PROJECTED ANSWERS: 7 TO 298

L8 7 SEA SSS SAM L7

=> s 17 full

FULL SEARCH INITIATED 12:15:55 FILE 'REGISTRY'
 FULL SCREEN SEARCH COMPLETED - 29577 TO ITERATE

100.0% PROCESSED 29577 ITERATIONS 120 ANSWERS
 SEARCH TIME: 00.00.01

L9 120 SEA SSS FUL L7

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	563.40	563.62

FILE 'CAPLUS' ENTERED AT 12:16:06 ON 13 FEB 2009
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FILE COVERS 1907 - 13 Feb 2009 VOL 150 ISS 8
FILE LAST UPDATED: 12 Feb 2009 (20090212/ED)

Caplus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2008.

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<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> s 19

L10 22 L9

=> d l10 ibib abs hitstr 1-

YOU HAVE REQUESTED DATA FROM 22 ANSWERS - CONTINUE? Y/(N):y

L10 ANSWER 1 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:1300986 CAPLUS

DOCUMENT NUMBER: 149:515060

TITLE: Dye-based black ink formulations and ink-jet ink sets

INVENTOR(S): Rengaswamy, Sukanya; Rehman, Zia Ur; Austin, Mary E.

PATENT ASSIGNEE(S): Hewlett-Packard Development Company, L.P., USA

SOURCE: PCT Int. Appl., 26pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008131393	A2	20081030	WO 2008-US61184	20080422
WO 2008131393	A3	20081218		
W:	AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA			
US 20080257206	A1	20081023	US 2007-788903	20070423
PRIORITY APPLN. INFO.:			US 2007-788903	A 20070423
GI				

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Dye-based black inks comprise 0.5 - 5.0 weight% black azo dyes such as I (X = SO₃Q, Q = Na or Li, n = 1 - 3) or II (R₁ and R₂ = H, halogen, CN, carboxy, sulfo, sulfamoyl, N-alkylaminosulfonyl or N-phenylaminosulfonyl group, R₃ - R₈ = H, CN, hydroxy, carboxy, sulfo, sulfamoyl, N-alkylaminosulfonyl or

N-phenylaminosulfonyl group, 0 <n< 1) 0.1 - 4.0% yellow dyes, 0 - 3.5% magenta dyes and 0 - 4.0% cyan dyes. Thus, a black ink with good color neutrality and water-fastness comprises 2.0 - 3.5% Exptl. Black 10, 1.5 - 2.5% Y104, 0.5 - 1.5% exptl. Magenta 1, 9% EHPD, 6.5% 2-pyrrolidinone, 2% 1,5-pentanediol, 0.2% Tergitol 15-S7, 0.2% MES acid, 0.04% Dowfax 8390, 0.1% EDTA Na2 and 0.1% Proxel GXL.

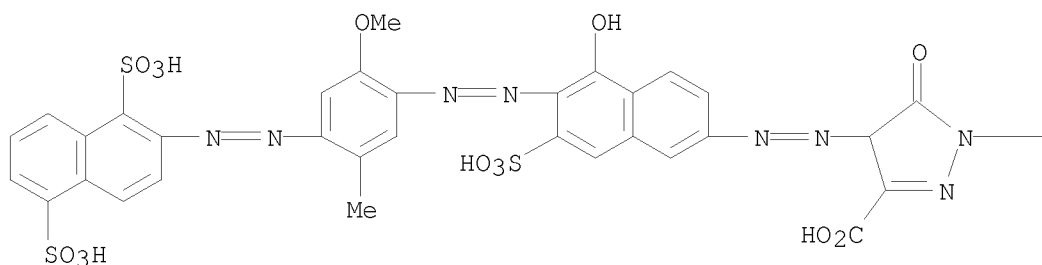
IT 1072113-42-8

RL: TEM (Technical or engineered material use); USES (Uses)
(dye, Exptl. Black 16; azo dye-based black inks comprising black, yellow, magenta and cyan dyes)

RN 1072113-42-8 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(1,5-disulfo-2-naphthalenyl)diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfo-phenyl)-, lithium sodium salt (1:?:?) (CA INDEX NAME)

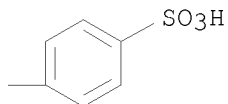
PAGE 1-A



●x Li

●x Na

PAGE 1-B



L10 ANSWER 2 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2008:1300069 CAPLUS
 DOCUMENT NUMBER: 149:515056
 TITLE: Dye-based black ink formulations and ink-jet ink sets
 INVENTOR(S): Rengaswamy, Sukanya; Rehman, Zia Ur; Austin, Mary E.
 PATENT ASSIGNEE(S): Hewlett-Packard Development Company, L.P., USA
 SOURCE: PCT Int. Appl., 25pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008131396	A2	20081030	WO 2008-US61187	20080422
WO 2008131396	A3	20081218		
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RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA			
US 20080257207	A1	20081023	US 2007-788904	20070423
PRIORITY APPLN. INFO.:			US 2007-788904	A 20070423
GI				

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Dye-based black inks comprise black azo dyes such as I (X = SO₃Q, Q = Na or Li, n = 1 - 3) or II (R₁ and R₂ = H, halogen, CN, carboxy, sulfo, sulfamoyl, N-alkylaminosulfonyl or N-phenylaminosulfonyl group, R₃ - R₈ = H, CN, hydroxy, carboxy, sulfo, sulfamoyl, N-alkylaminosulfonyl or N-phenylaminosulfonyl group, 0 < n < 1), yellow dyes, magenta dyes and cyan dyes and 5 - 30% organic solvents. Thus, a black ink with good color neutrality and water-fastness comprises 4% II, 3% Exptl. Black 16, 10.9% EHPD, 6.5% 2-pyrrolidinone, 2% 1,5-pentanediol, 0.2% Tergitol 15-S7, 0.2% MES acid, 3.6% betaine, 0.04% Dowfax 8390, 0.1% EDTA Na₂ and 0.1% Proxel GXL.

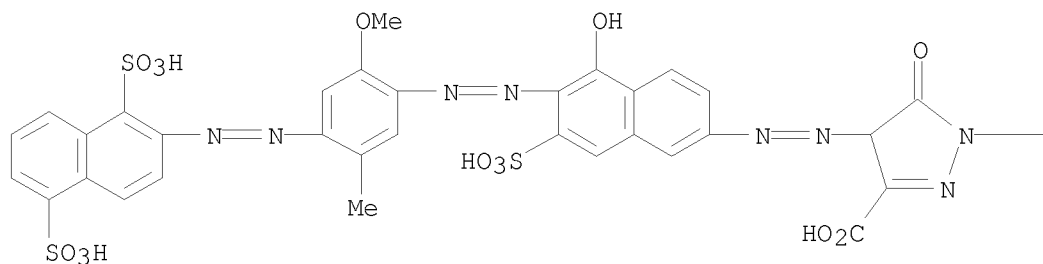
IT 1072113-42-8

RL: TEM (Technical or engineered material use); USES (Uses)

(black dye, Exptl. Black 16; azo dye-based black inks comprising black, yellow, magenta and cyan dyes and organic solvents)

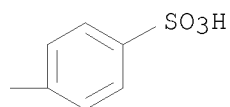
RN 1072113-42-8 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(1,5-disulfo-2-naphthalenyl)diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfo-phenyl)-, lithium sodium salt (1:?:?) (CA INDEX NAME)



●x Li

●x Na



L10 ANSWER 3 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2008:1278834 CAPLUS
 DOCUMENT NUMBER: 149:495181
 TITLE: Dye-based black ink formulations and ink-jet ink sets
 INVENTOR(S): Rengaswamy, Sukanya; Rehman, Zia Ur; Austin, Mary E.
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 11pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20080257207	A1	20081023	US 2007-788904	20070423
WO 2008131396	A2	20081030	WO 2008-US61187	20080422
WO 2008131396	A3	20081218		

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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,

TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
 AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA
 PRIORITY APPLN. INFO.: US 2007-788904 A 20070423
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Dye-based black inks comprise black azo dyes such as I (X = SO₃Q, Q = Na or Li, n = 1 - 3) or II (R₁ and R₂ = H, halogen, CN, carboxy, sulfo, sulfamoyl, N-alkylaminosulfonyl or N-phenylaminosulfonyl group, R₃ - R₈ = H, CN, hydroxy, carboxy, sulfo, sulfamoyl, N-alkylaminosulfonyl or N-phenylaminosulfonyl group, 0 < n < 1), yellow dyes, magenta dyes and cyan dyes and 5 - 30% organic solvents. Thus, a black ink with good color neutrality and water-fastness comprises 4% II, 3% Exptl. Black 16, 10.9% EHPD, 6.5% 2-pyrrolidinone, 2% 1,5-pentanediol, 0.2% Tergitol 15-S7, 0.1% MES acid, 3.6% betaine, 0.04% Dowfax 8390, 0.1% EDTA Na₂ and 0.1% Proxel GXL.

IT 1072113-42-8

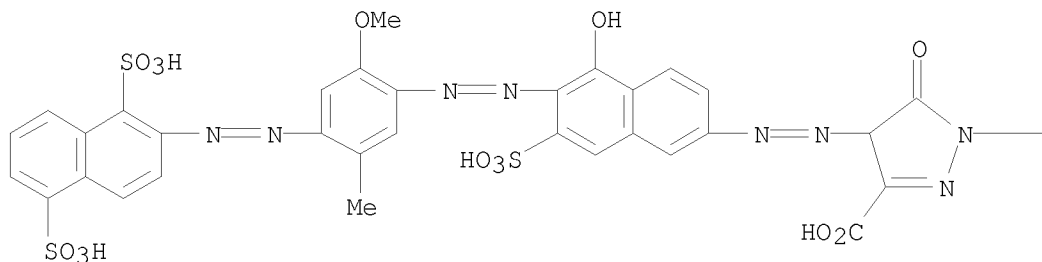
RL: TEM (Technical or engineered material use); USES (Uses)

(black dye, Exptl. Black 16; azo dye-based black inks comprising black, yellow, magenta and cyan dyes and organic solvents)

RN 1072113-42-8 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(1,5-disulfo-2-naphthalenyl)diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-, lithium sodium salt (1:?:?) (CA INDEX NAME)

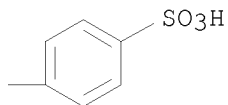
PAGE 1-A



●x Li

●x Na

PAGE 1-B



L10 ANSWER 4 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:1278830 CAPLUS
DOCUMENT NUMBER: 149:495180
TITLE: Dye-based black ink formulations and ink-jet ink sets
INVENTOR(S): Rengaswamy, Sukanya; Rehman, Zia Ur; Austin, Mary E.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 12pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 20080257206	A1	20081023	US 2007-788903	20070423
WO 2008131393	A2	20081030	WO 2008-US61184	20080422
WO 2008131393	A3	20081218		
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PRIORITY APPLN. INFO.: US 2007-788903 A 20070423
GI

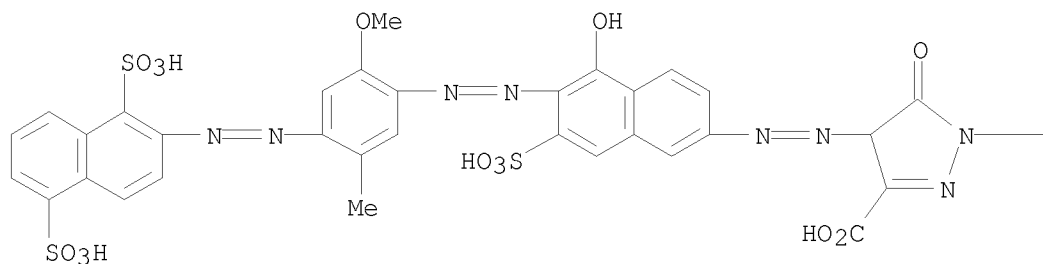
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Dye-based black inks comprise 0.5 - 5.0 weight% black azo dyes such as, an example, (I) (X = SO₃Q, Q = Na or Li, n = 1 - 3) or (II) (R₁ and R₂ = H, halogen, CN, carboxy, sulfo, sulfamoyl, N-alkylaminosulfonyl or N-phenylaminosulfonyl group, R₃ - R₈ = H, CN, hydroxy, carboxy, sulfo, sulfamoyl, N-alkylaminosulfonyl or N-phenylaminosulfonyl group, 0 < n < 1) 0.1 - 4.0 weight% yellow dyes, 0 - 3.5 weight% magenta dyes and 0 - 4.0 weight% cyan dyes. Thus, a black ink with good color neutrality and water-fastness comprises 2.0 - 3.0 weight% Exptl. Black 10, 1.5 - 2.5 weight% Y104, 0.5 - 1.5 weight% exptl. Magenta 1, 9 weight% EHPD, 6.5 weight% 2-pyrrolidinone, 2 weight% 1,5-pentanediol, 0.2 weight% Tergitol 15-S7, 0.2 weight% MES acid, 0.04 weight% Dowfax 8390, 0.1 weight% EDTA Na₂ and 0.1 weight% Proxel GXL.

IT 1072113-42-8
RL: TEM (Technical or engineered material use); USES (Uses)
(dye, Exptl. Black 16; azo dye-based black inks comprising black, yellow, magenta and cyan dyes)

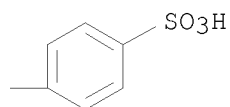
RN 1072113-42-8 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(1,5-disulfo-2-naphthalenyl)diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-, lithium sodium salt (1:?:?) (CA INDEX NAME)



●x Li

●x Na



L10 ANSWER 5 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2007:1334067 CAPLUS
 DOCUMENT NUMBER: 147:543238
 TITLE: Trisazo compounds and ink jet printing ink compositions containing them
 INVENTOR(S): Bradbury, Roy; Mistry, Prahalad Manibhai
 PATENT ASSIGNEE(S): Fujifilm Imaging Colorants Limited, UK; Bradbury, Lynn Patricia
 SOURCE: PCT Int. Appl., 43pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007132150	A1	20071122	WO 2007-GB1556	20070427
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,				

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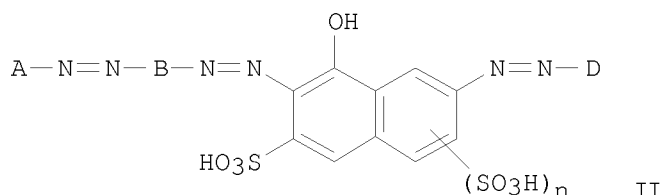
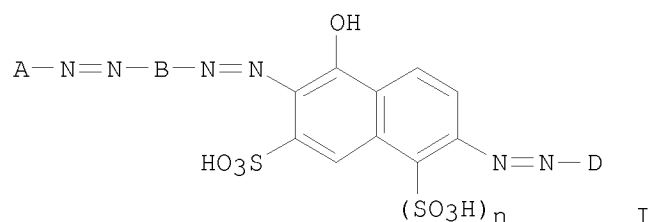
PRIORITY APPLN. INFO.:

GB 2006-9091

A 20060509

OTHER SOURCE(S): MARPAT 147:543238

GI



AB The compds. are used as colorants for ink-jet inks and comprise compds. of Formula I and compds. of Formula II or a salt thereof: wherein: A is an optionally substituted 8-hydroxynaphthyl; B is optionally substituted phenylene or naphthylene; n is 0 or 1; and D is an optionally substituted pyrazolyl group. Inks using the compds. have good storage stability and printability. Also provided are printing processes, ink compns. and ink-jet cartridges for use in an ink-jet printer and substrates printed using an ink-jet printer.

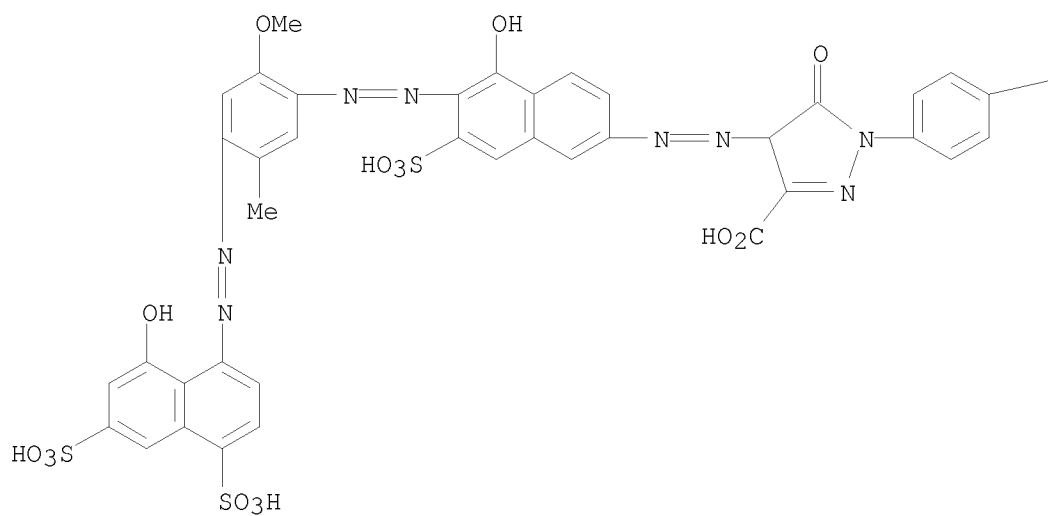
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957463-03-5P 957463-04-6P 957463-05-7P
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957463-09-1P 957463-10-4P 957463-11-5P
957463-12-6P 957463-13-7P 957463-14-8P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(dye; manufacture of trisazo compds. for use as colorants in ink jet printing ink with good storage stability and printability)

RN 957462-94-1 CAPLUS

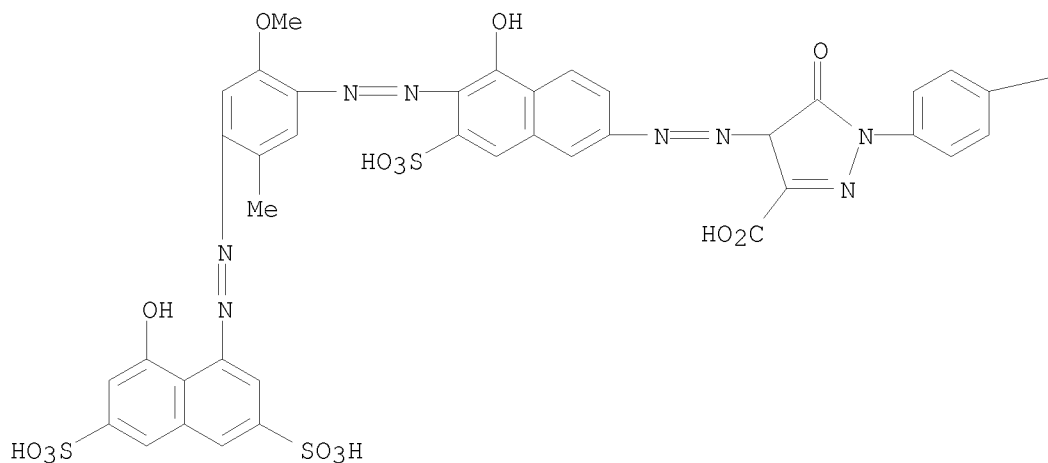
CN 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-4-[2-[5-hydroxy-6-[2-[4-[2-(8-hydroxy-4,6-disulfo-1-naphthalenyl)diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-7-sulfo-2-naphthalenyl]diazenyl]-5-oxo-1-(4-sulphophenyl)-, lithium salt (1:5) (CA INDEX NAME)



—SO₃H

● 5 Li

RN 957462-95-2 CAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-4-[2-[5-hydroxy-6-[2-[4-[2-(8-hydroxy-3,6-disulfo-1-naphthalenyl)diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-7-sulfo-2-naphthalenyl]diazenyl]-5-oxo-1-(4-sulphophenyl)- (CA INDEX NAME)

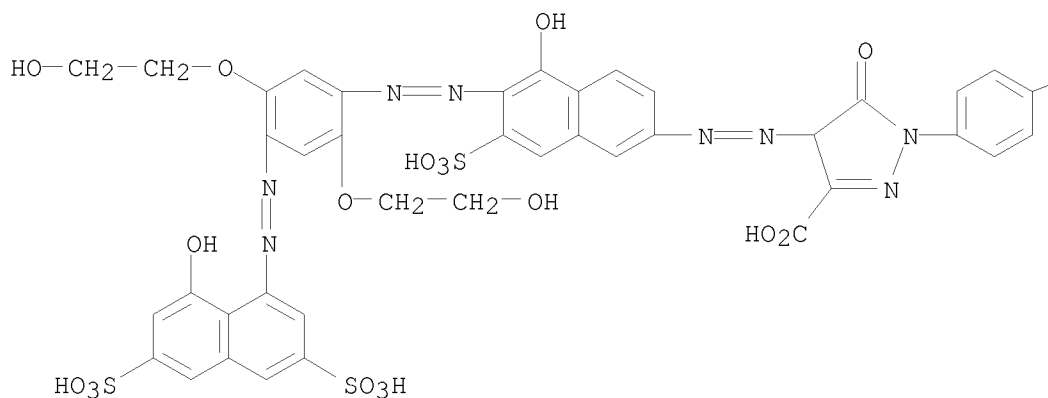


—SO₃H

RN 957462-96-3 CAPLUS

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PAGE 1-A



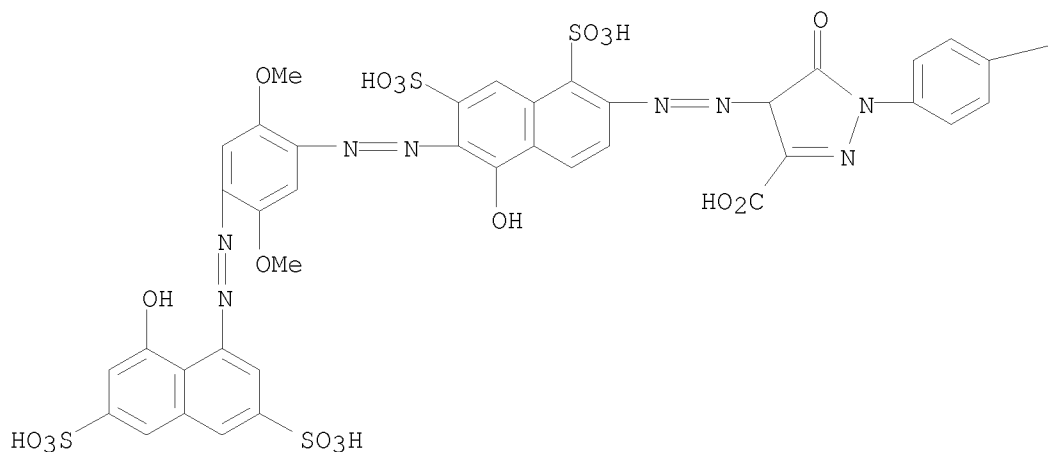
PAGE 1-B

—SO₃H

RN 957462-97-4 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-4-[2-[5-hydroxy-6-[2-[4-[2-(8-hydroxy-3,6-disulfo-1-naphthalenyl)diazenyl]-2,5-dimethoxyphenyl]diazenyl]-1,7-disulfo-2-naphthalenyl]diazenyl]-5-oxo-1-(4-sulphophenyl)- (CA INDEX NAME)

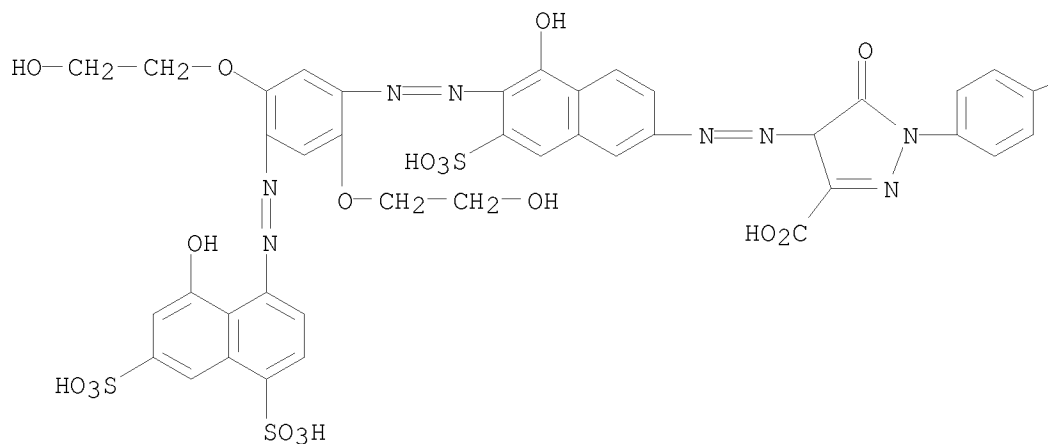
PAGE 1-A



—SO₃H

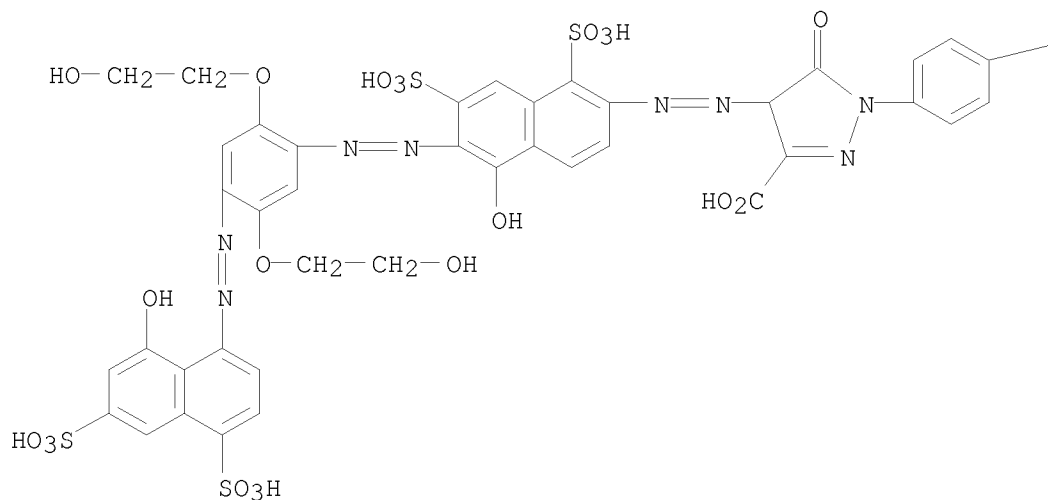
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—SO₃H

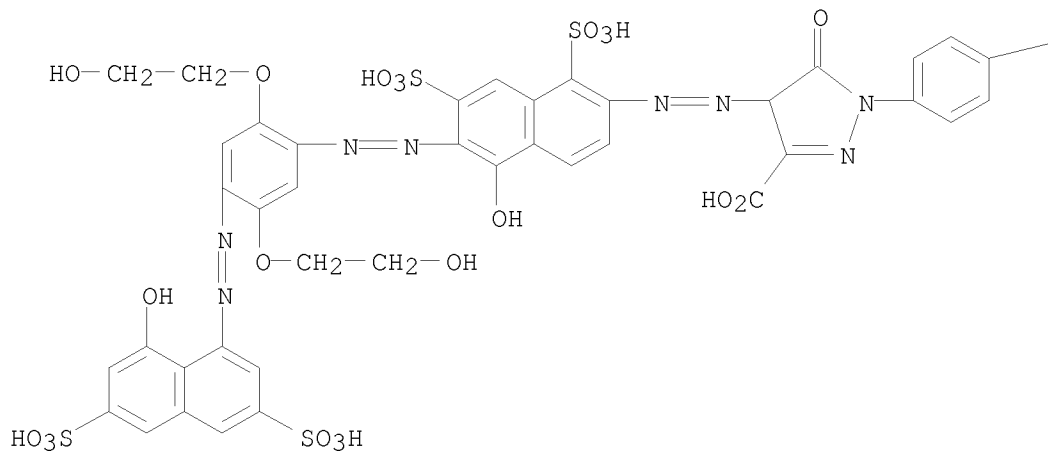
RN 957462-99-6 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-4-[2-[5-hydroxy-6-[2-[4-[2-(8-hydroxy-4,6-disulfo-1-naphthalenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-1,7-disulfo-2-naphthalenyl]diazenyl]-5-oxo-1-(4-sulfo-phenyl)- (CA INDEX NAME)



—SO₃H

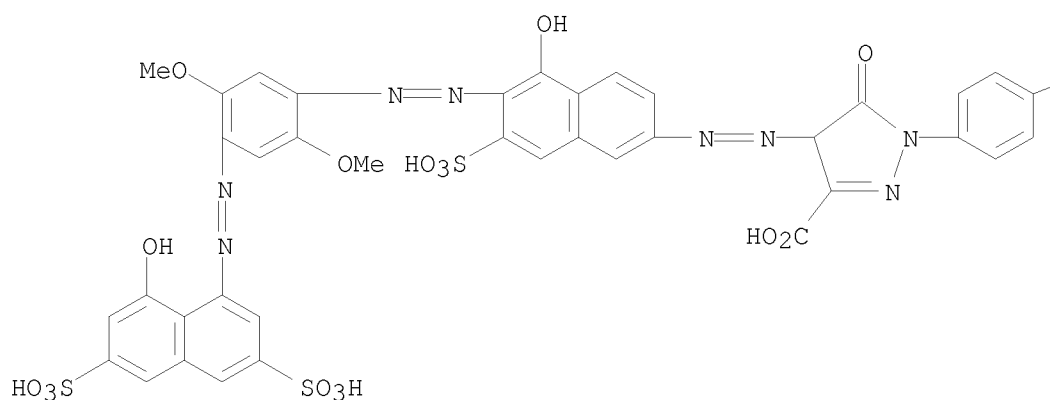
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—SO₃H

RN 957463-01-3 CAPLUS
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PAGE 1-A

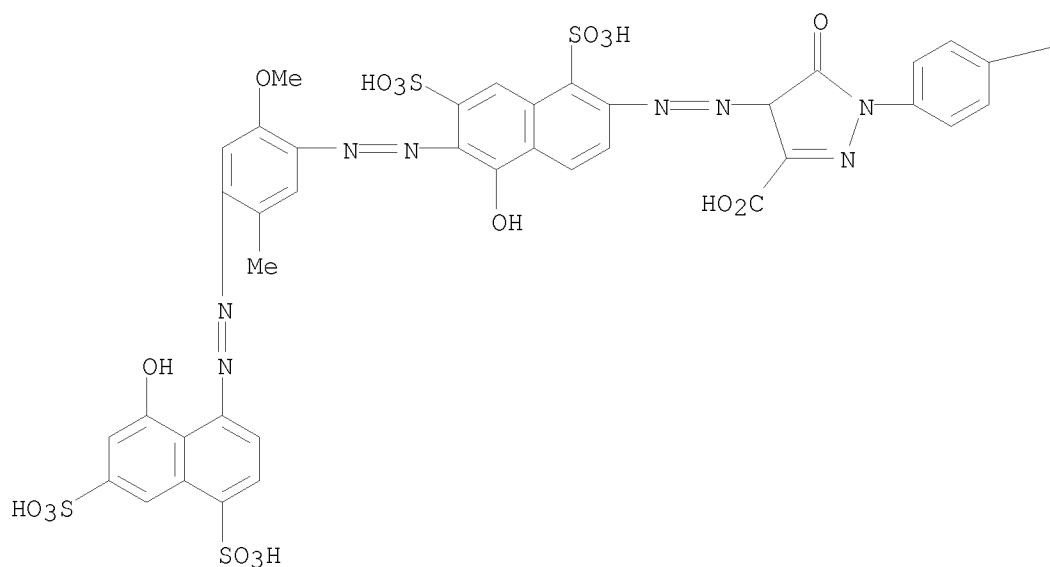


PAGE 1-B

—SO₃H

RN 957463-02-4 CAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-4-[2-[5-hydroxy-6-[2-[4-[2-(8-hydroxy-4,6-disulfo-1-naphthalenyl)diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-1,7-disulfo-2-naphthalenyl]diazenyl]-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

PAGE 1-A



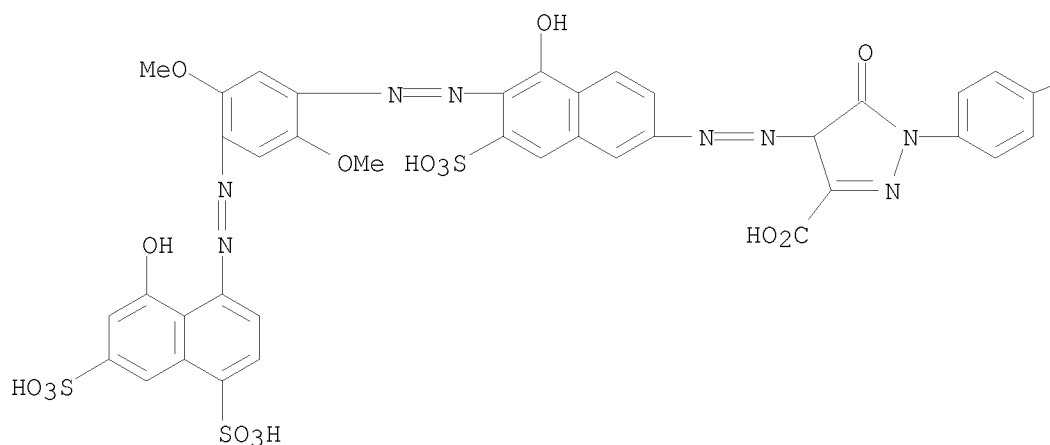
PAGE 1-B

—SO₃H

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CN 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-4-[2-[5-hydroxy-6-[2-[4-[2-(8-hydroxy-4,6-disulfo-1-naphthalenyl)diazenyl]-2,5-dimethoxyphenyl]diazenyl]-7-sulfo-2-naphthalenyl]diazenyl]-5-oxo-1-(4-sulfohenyl)- (CA INDEX NAME)

PAGE 1-A

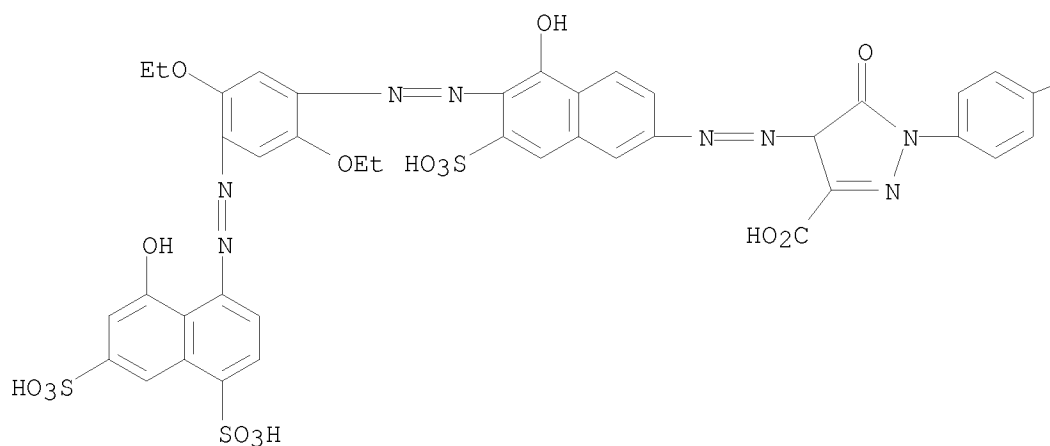


PAGE 1-B

SO3H

RN 957463-04-6 CAPLUS
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-diethoxy-4-[2-(8-hydroxy-4,6-disulfo-1-naphthalenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfohenyl)- (CA INDEX NAME)

PAGE 1-A



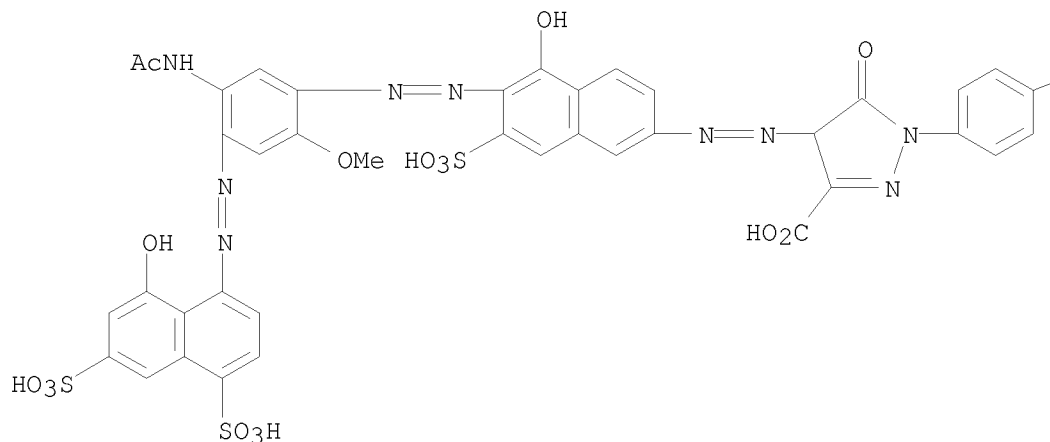
PAGE 1-B

SO3H

RN 957463-05-7 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[5-(acetylamino)-4-[2-(8-hydroxy-4,6-disulfo-1-naphthalenyl)diazenyl]-2-methoxyphenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

PAGE 1-A



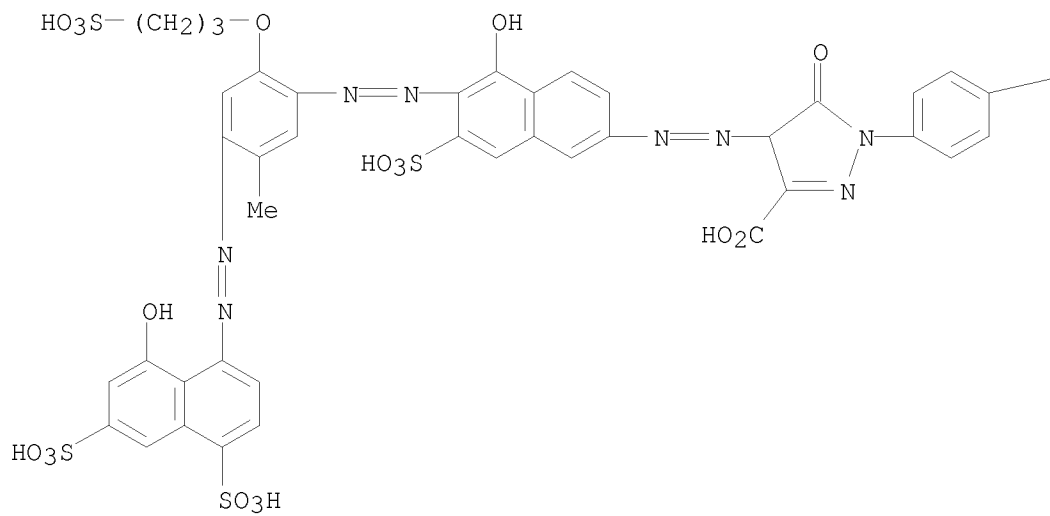
PAGE 1-B

SO₃H

RN 957463-06-8 CAPLUS

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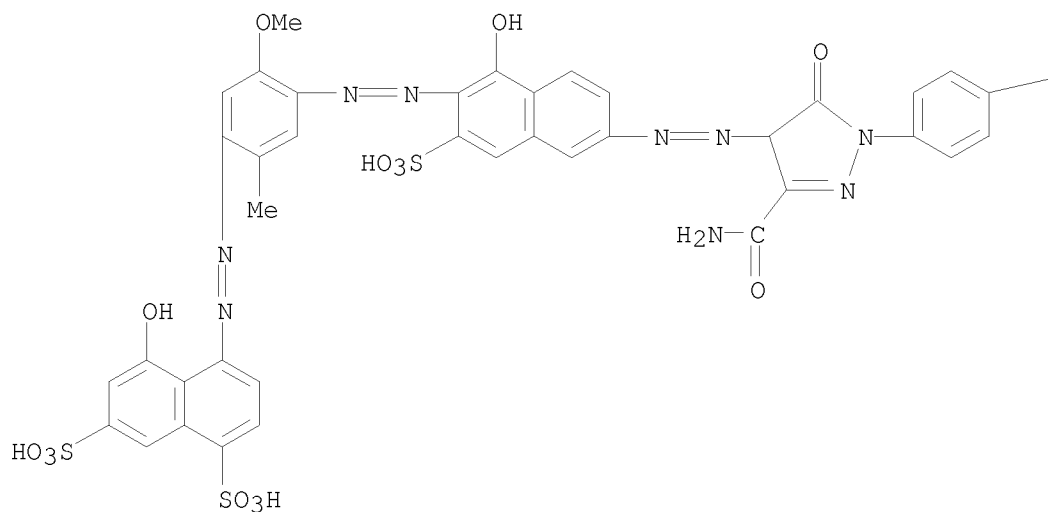
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—SO₃H

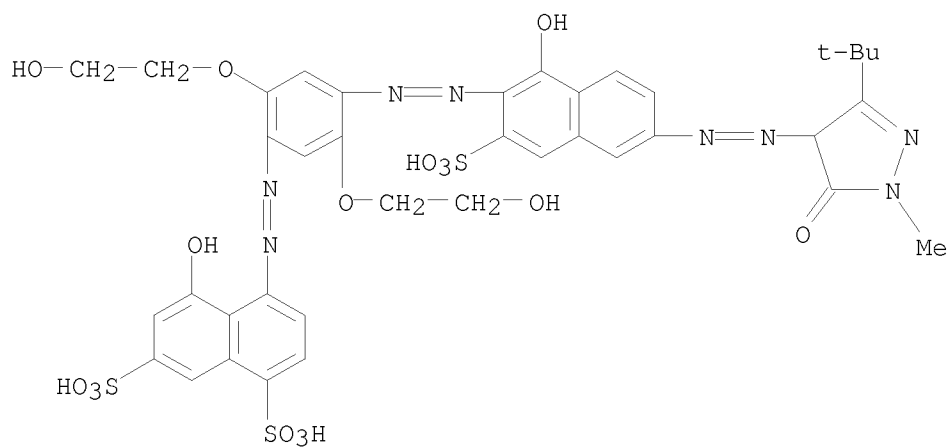
RN 957463-07-9 CAPLUS

CN 1,7-Naphthalenedisulfonic acid, 4-[2-[4-[2-[6-[2-[3-(aminocarbonyl)-4,5-dihydro-5-oxo-1-(4-sulfohenyl)-1H-pyrazol-4-yl]diazanyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazanyl]-5-methoxy-2-methylphenyl]diazanyl]-5-hydroxy- (CA INDEX NAME)

—SO₃H

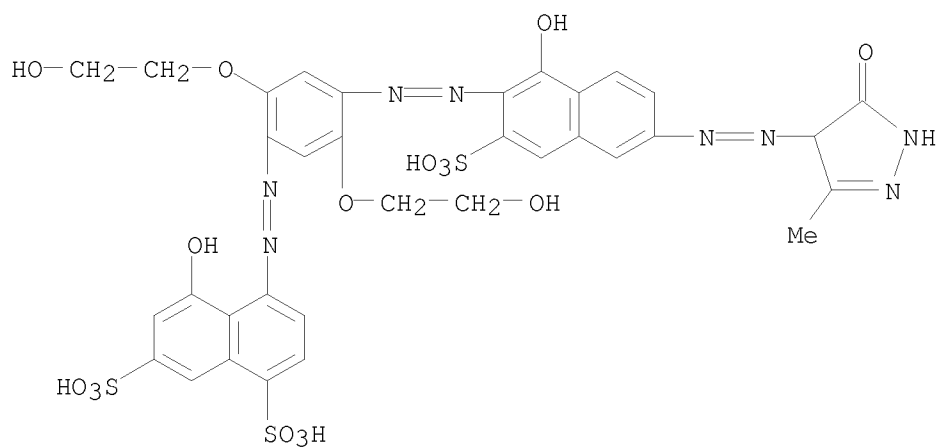
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CN 1,7-Naphthalenedisulfonic acid, 4-[2-[4-[2-[6-[2-[3-(1,1-dimethylethyl)-4,5-dihydro-1-methyl-5-oxo-1H-pyrazol-4-yl]diazanyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazanyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazanyl]-5-hydroxy- (CA INDEX NAME)



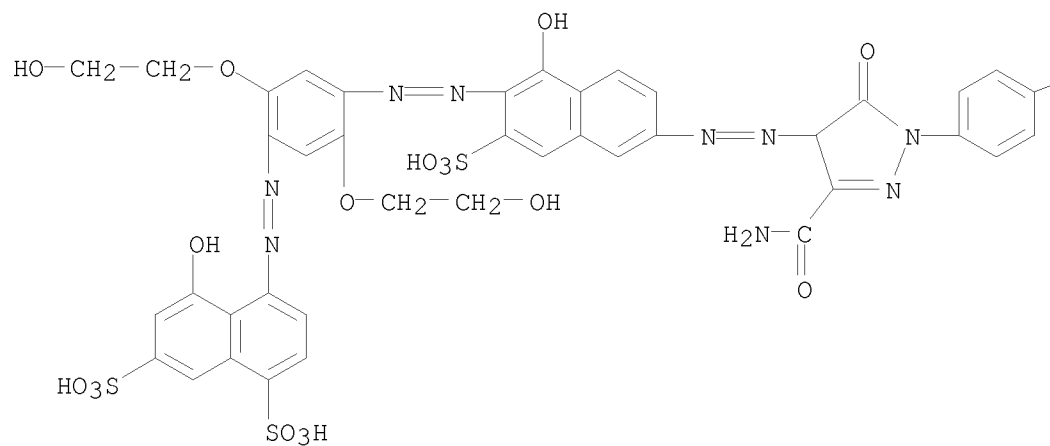
RN 957463-09-1 CAPLUS

CN 1,7-Naphthalenedisulfonic acid, 4-[2-[4-[2-[6-[2-(4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-4-yl)diazenyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy- (CA INDEX NAME)



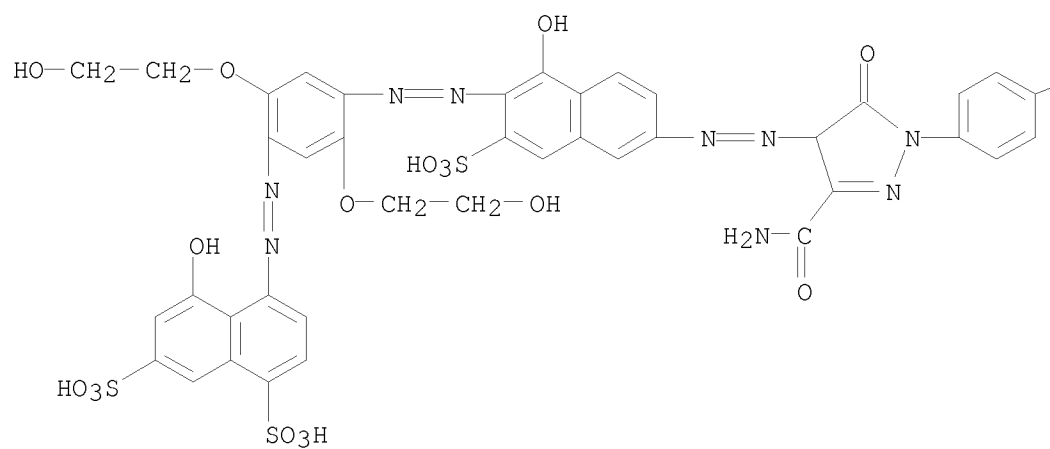
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CN 1,7-Naphthalenedisulfonic acid, 4-[2-[4-[2-[6-[2-[3-(aminocarbonyl)-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy- (CA INDEX NAME)



—SO₃H

RN 957463-11-5 CAPLUS
 CN Benzoic acid, 4-[3-(aminocarbonyl)-4,5-dihydro-4-[2-[5-hydroxy-6-[2-[4-[2-(8-hydroxy-4,6-disulfo-1-naphthalenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-7-sulfo-2-naphthalenyl]diazenyl]-5-oxo-1H-pyrazol-1-yl]- (CA INDEX NAME)

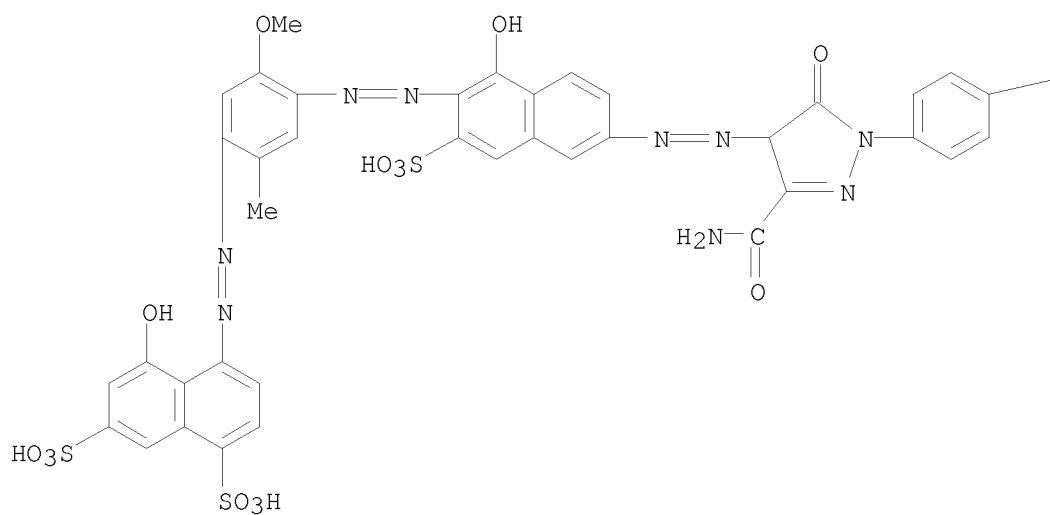


—CO₂H

RN 957463-12-6 CAPLUS
 CN Benzoic acid, 4-[3-(aminocarbonyl)-4,5-dihydro-4-[2-[5-hydroxy-6-[2-[4-[2-(8-hydroxy-4,6-disulfo-1-naphthalenyl)diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-7-sulfo-2-naphthalenyl]diazenyl]-5-oxo-1H-pyrazol-1-

y1]- (CA INDEX NAME)

PAGE 1-A

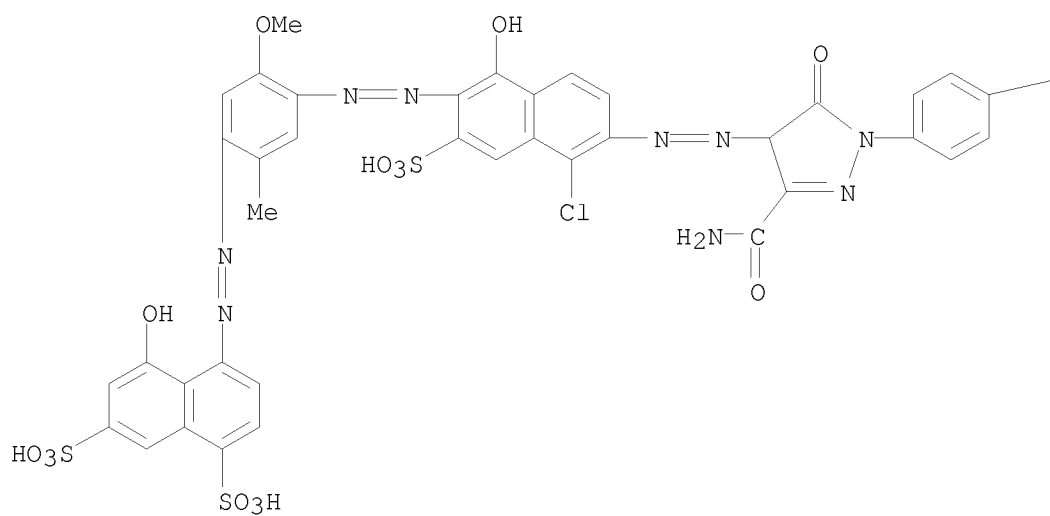


PAGE 1-B

—CO₂H

RN 957463-13-7 CAPLUS
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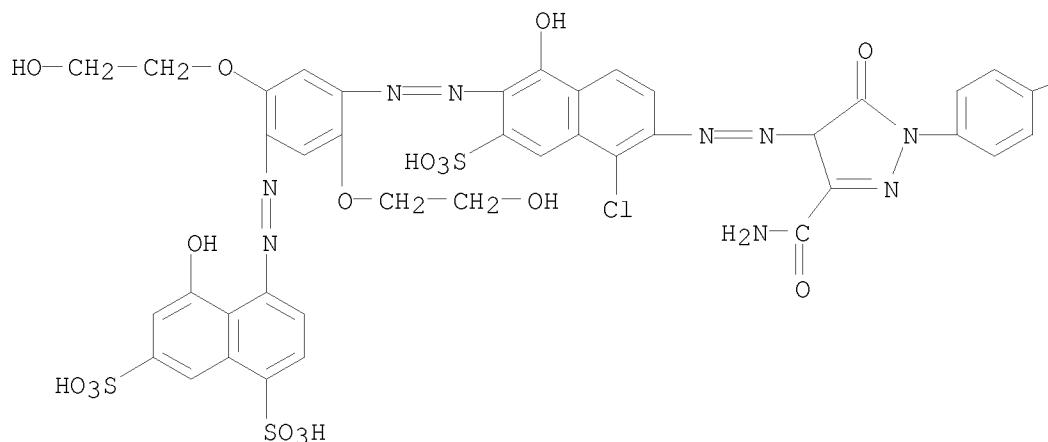
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—SO₃H

RN 957463-14-8 CAPLUS
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PAGE 1-A



PAGE 1-B

—SO₃H

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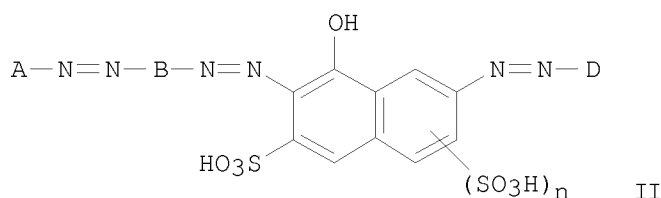
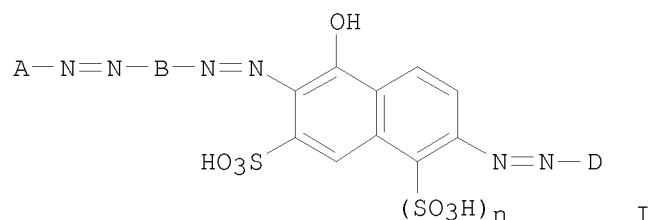
L10 ANSWER 6 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2007:1332477 CAPLUS
 DOCUMENT NUMBER: 147:543237
 TITLE: Trisazo compounds and ink jet printing ink compositions containing them
 INVENTOR(S): Mistry, Prahalad Manibhai
 PATENT ASSIGNEE(S): Fujifilm Imaging Colorants Limited, UK
 SOURCE: PCT Int. Appl., 38pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

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WO 2007132151	A1	20071122	WO 2007-GB1562	20070427
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 RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT,
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PRIORITY APPLN. INFO.:			GB 2006-9086	A 20060509
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OTHER SOURCE(S): MARPAT 147:543237
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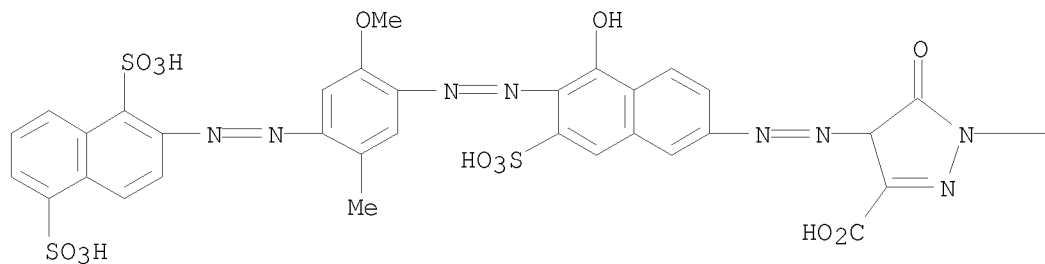


AB The compds. are used as colorants for ink-jet inks and comprise compds. of Formula I and compds. of Formula II or a salt thereof: wherein: A is a naphthyl group bearing sulfonic acid groups; B is optionally substituted phenylene or naphthylene; n is 0 or 1; and D is an optionally substituted pyrazolyl group. Inks using the compds. have good storage stability and printability. Also provided are printing processes, ink compns. and ink-jet cartridges for use in an ink-jet printer and substrates printed using an ink-jet printer.

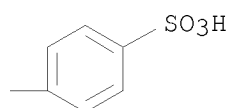
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 957342-85-7P 957342-87-9P 957342-89-1P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (dye; manufacture of trisazo compds. for use as colorants in ink jet printing ink with good storage stability and printability)

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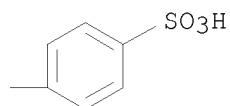
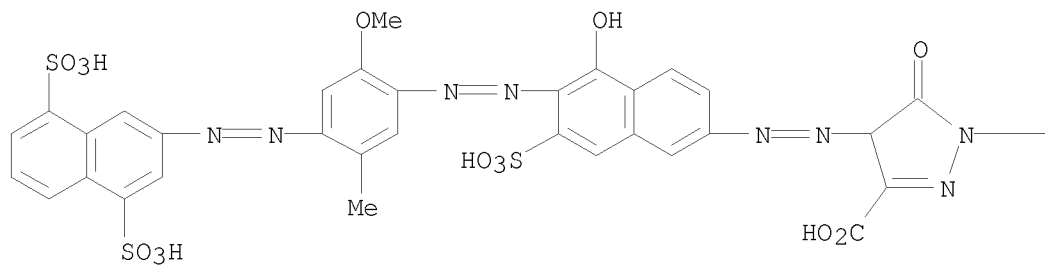
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●5 Li



RN 957342-74-4 CAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(4,8-disulfo-2-naphthalenyl)diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfo-phenyl)- (CA INDEX NAME)




RN 957342-75-5 CAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(1-sulfo-2-naphthalenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfo-phenyl)- (CA INDEX NAME)

O=S(=O)(O)c1ccc(cc1)/N=N/c2cc(OC)cc(OC)c2/N=N/c3ccc(O)c(S(=O)(=O)O)c3/N=N/c4c(C(=O)O)nn(c4=O)N

CS(=O)(=O)c1ccc(C)cc1

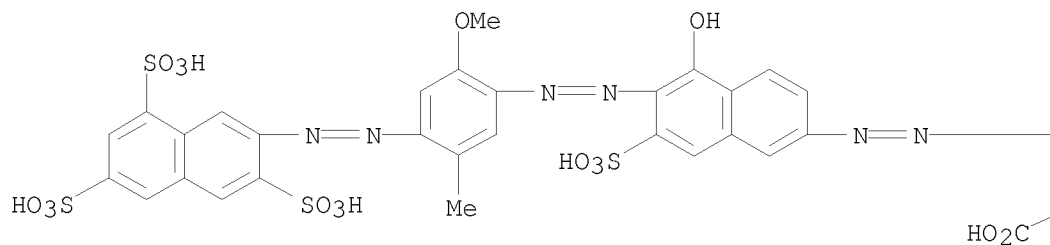
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The chemical structure is a complex azo dye. It consists of a naphthalene-2-sulfonic acid moiety (left) connected via an azo group ($-N=N-$) to a 4-methoxy-2-methylphenyl ring. This ring is further connected via another azo group ($-N=N-$) to a 5-hydroxy-2-naphthyl ring, which is finally connected to a 5-carboxy-1,2,4-triazole moiety (right). The triazole ring has a carbonyl group ($C=O$) at position 4 and a carboxylic acid group ($-COOH$) at position 5.

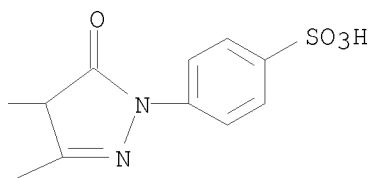


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PAGE 1-A

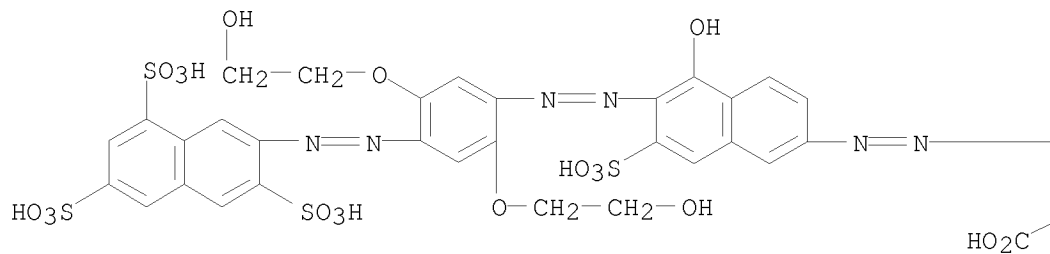


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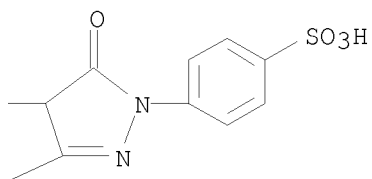


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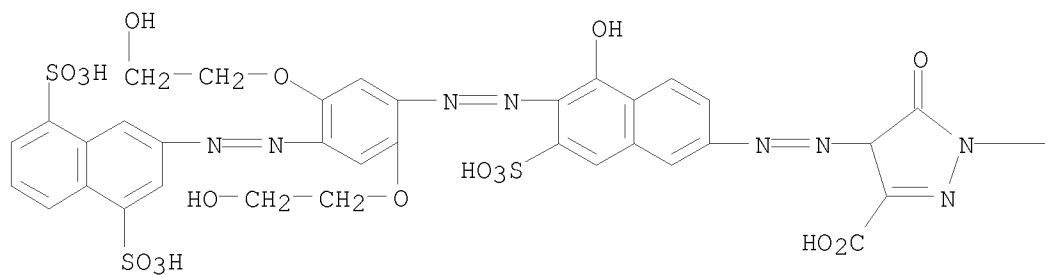


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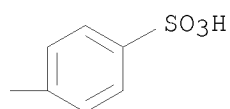


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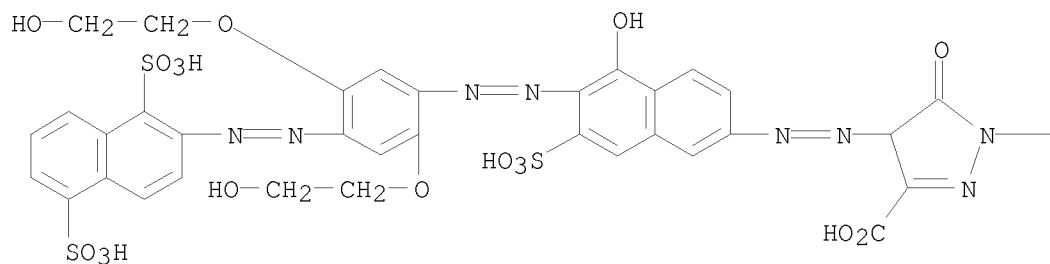


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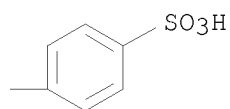


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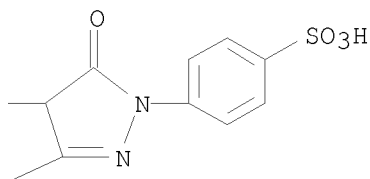
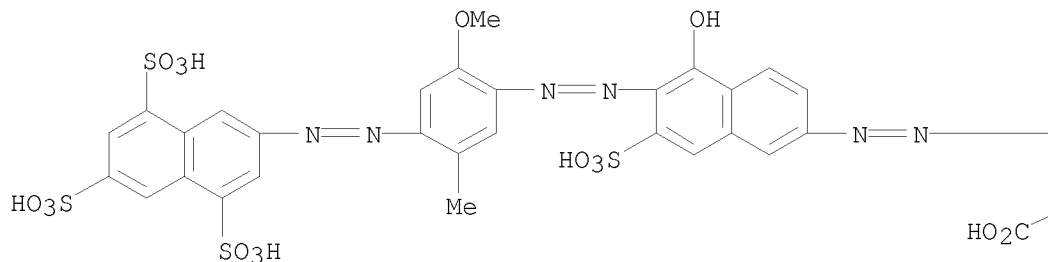
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PAGE 1-B



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REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 7 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:173868 CAPLUS

DOCUMENT NUMBER: 146:230985

TITLE: Process for printing an image on a substrate, composition and azo dye compound for use in the composition

INVENTOR(S): Monahan, Lilian; Double, Philip John; Bradbury, Roy

PATENT ASSIGNEE(S): Fujifilm Imaging Colorants Limited, UK

SOURCE: PCT Int. Appl., 50pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007017631	A2	20070215	WO 2006-GB2862	20060731
WO 2007017631	A3	20070614		
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RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA			
EP 1915431	A2	20080430	EP 2006-765174	20060731
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JP 2009504831	T	20090205	JP 2008-525613	20060731

PRIORITY APPLN. INFO.:

GB 2005-16243

A 20050808

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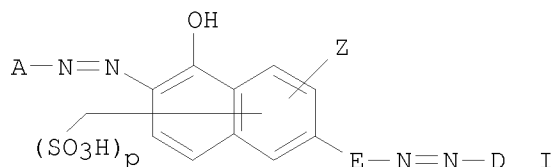
WO 2006-GB2862

W 20060731

OTHER SOURCE(S):

MARPAT 146:230985

GI



AB A process for printing an image on a substrate with high d. and good lightfastness, comprising applying to the substrate an ink composition which comprises a liquid medium and a compound of formula I; wherein: A and D each independently represent optionally substituted aryl or optionally substituted heteroaryl; E represents optionally substituted pyrazolyl; Z represents H, halogen, nitro, cyano, hydroxy, amino, carboxy, optionally substituted alkyl, optionally substituted alkoxy or optionally substituted aryloxy; and p is an integer from 0 to 5; provided that E does not have an optionally substituted carbonamide group of formula - CONR1R2 directly attached to it, wherein R1 and R2 each independently represent H, optionally substituted alkyl, optionally substituted cycloalkyl, or optionally substituted aryl. The printing is preferably ink jet printing. Also provided are compds. of formula I and ink compns. containing the same.

IT 924311-51-3 924311-52-4 924311-55-7

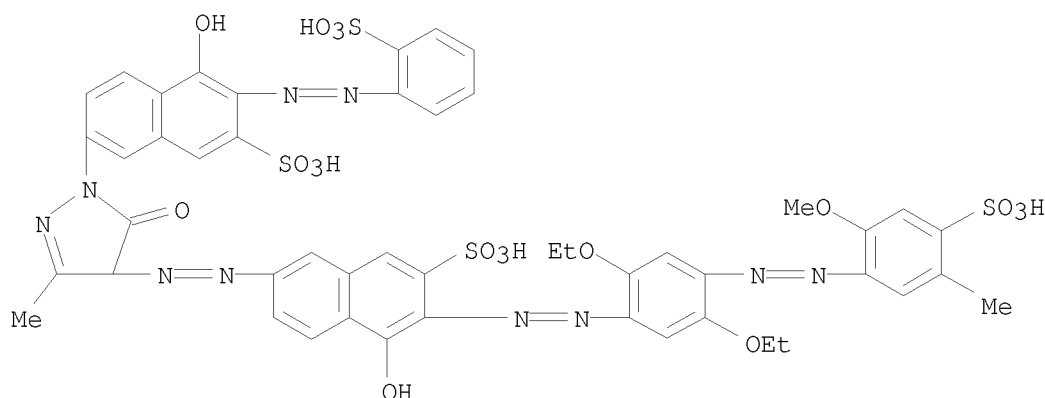
924311-56-8

RL: TEM (Technical or engineered material use); USES (Uses)

(dye; manufacture of diazo naphthalene compds. and compns. for use in ink-jet printing)

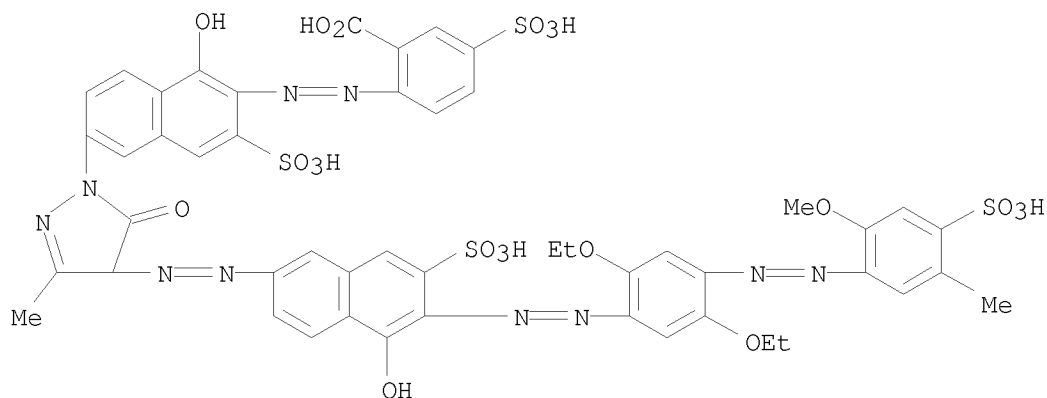
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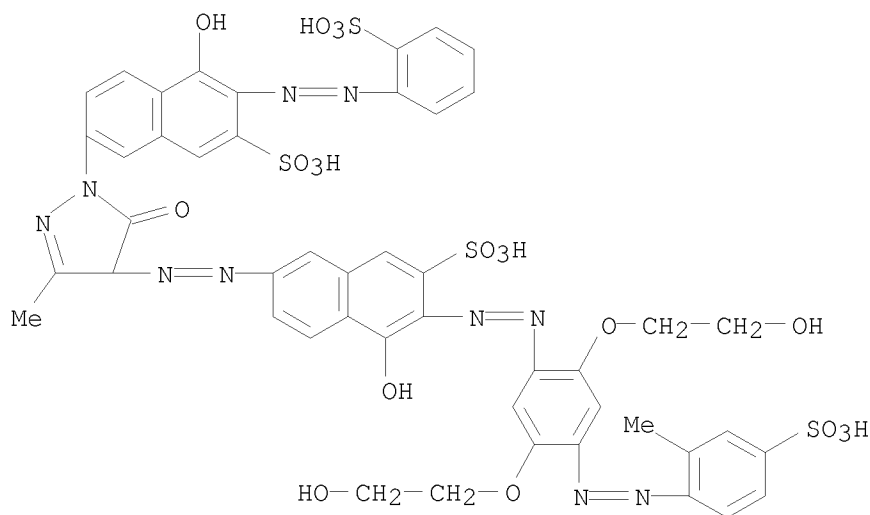
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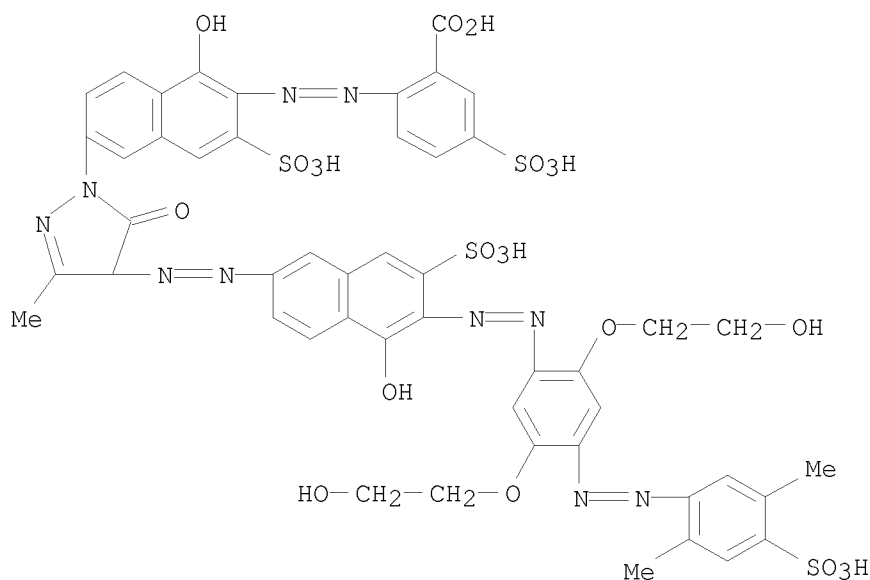
RN 924311-55-7 CAPLUS

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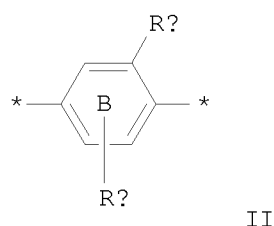
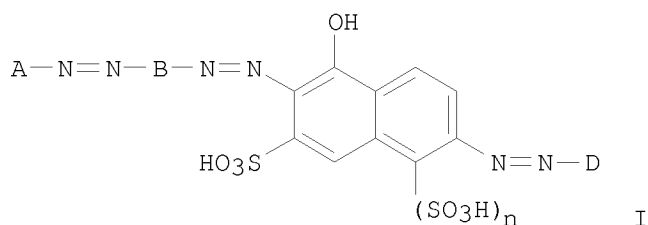
RN 924311-56-8 CAPLUS

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L10 ANSWER 8 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2005:490398 CAPLUS
 DOCUMENT NUMBER: 143:28079
 TITLE: Trisazo-dyestuffs for use as dyes and ink-jet inks
 INVENTOR(S): Mistry, Prahalad Manibhai; Bradbury, Roy
 PATENT ASSIGNEE(S): Avecia Inkjet Limited, UK
 SOURCE: PCT Int. Appl., 59 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005052065	A1	20050609	WO 2004-GB4868	20041118
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RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1697467	A1	20060906	EP 2004-798583	20041118
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JP 2007517082	T	20070628	JP 2006-540590	20041118
US 20070062409	A1	20070322	US 2006-579783	20060518
PRIORITY APPLN. INFO.:			GB 2003-26980	A 20031120
			GB 2003-26997	A 20031120
			WO 2004-GB4868	W 20041118
OTHER SOURCE(S):		MARPAT 143:28079		
GI				



AB The invention relates to a compound of formula (I) or salt thereof: wherein A is optionally substituted Ph or naphthyl; B is optionally substituted phenylene or naphthylene; n is 0 or 1; and D is a pyrazolyl group, with the proviso that when A is an optionally substituted Ph group and B is a phenylene group of formula: (II); wherein Ra is OH or a C1-4-alkoxy group; and Rb is H or a C1-4-alkyl group, hydroxy group, C1-4-alkoxy group, C1-3-dialkylamino group or a group of the formula NHCORc (wherein Rc is C1-3-alkyl or an amino group); and * shows the point of attachment to the azo linkages on B in formula (I); A is free from nitro groups. Also, claimed are compds., compns. and ink-jet cartridges for use in an ink-jet printer and substrate printed with an ink-jet printer.

IT 852909-45-6P 852909-46-7P 852909-47-8P
 852909-48-9P 852909-49-0P 852909-50-3P
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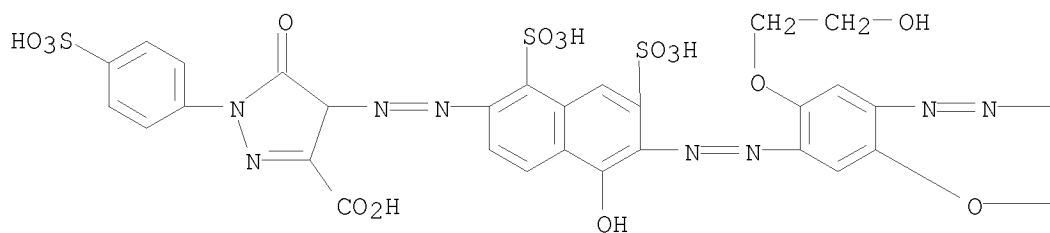
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of trisazo-dyestuffs for use as dyes and ink-jet inks)

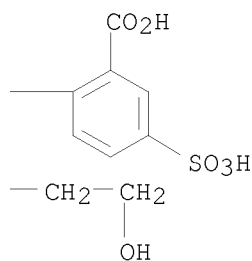
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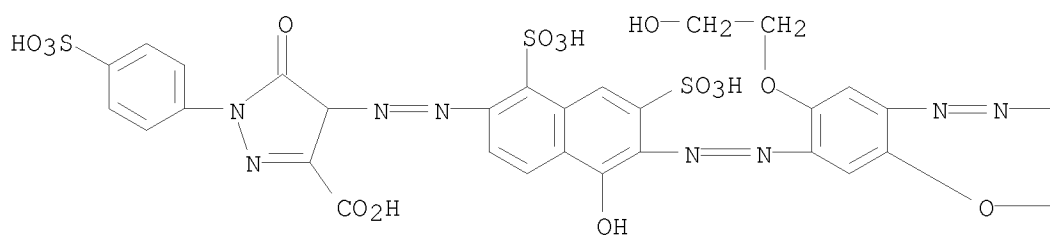
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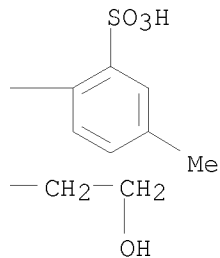
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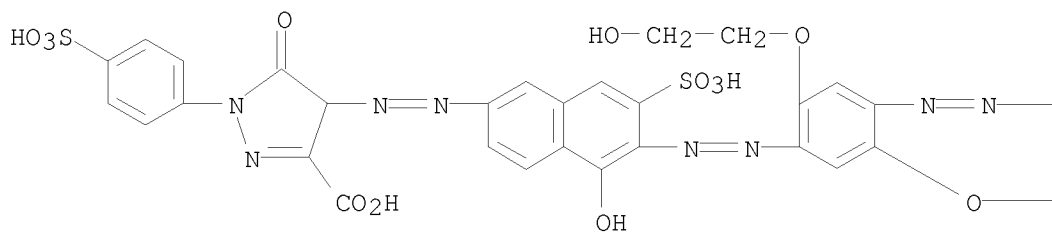


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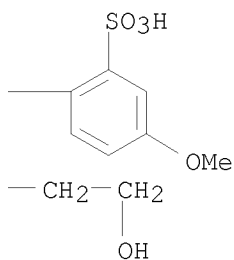
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(4-methoxy-2-sulfophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

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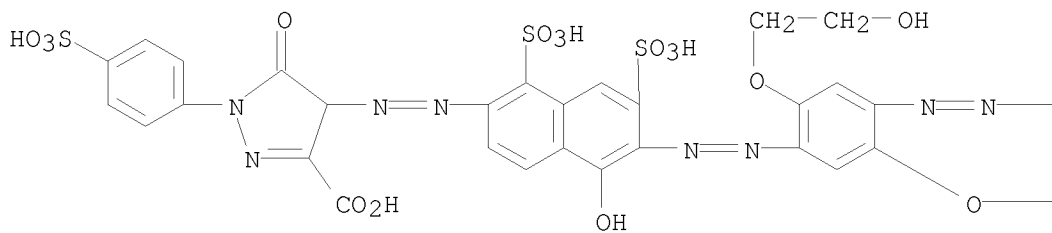


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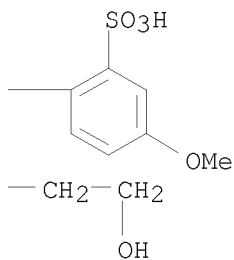


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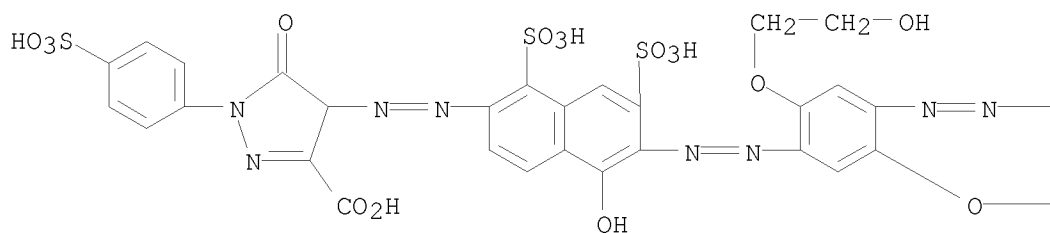
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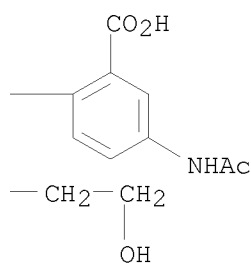
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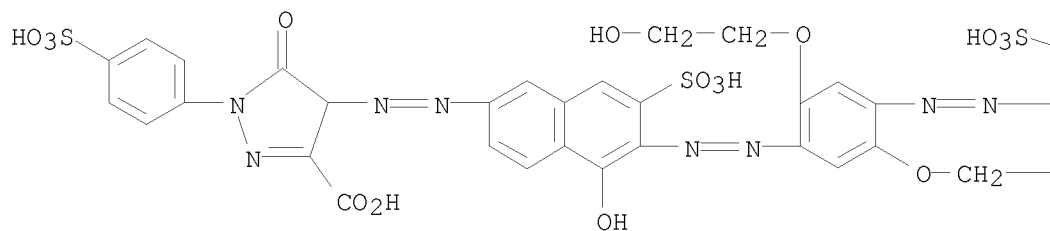
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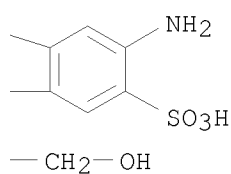
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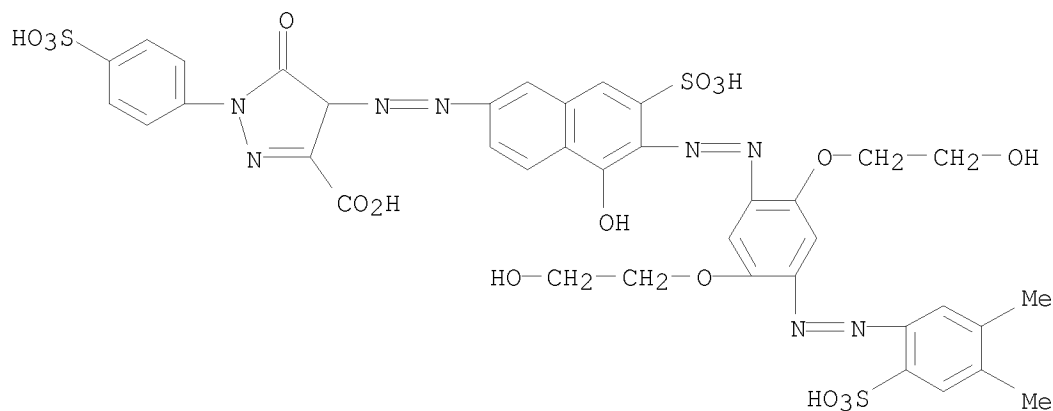


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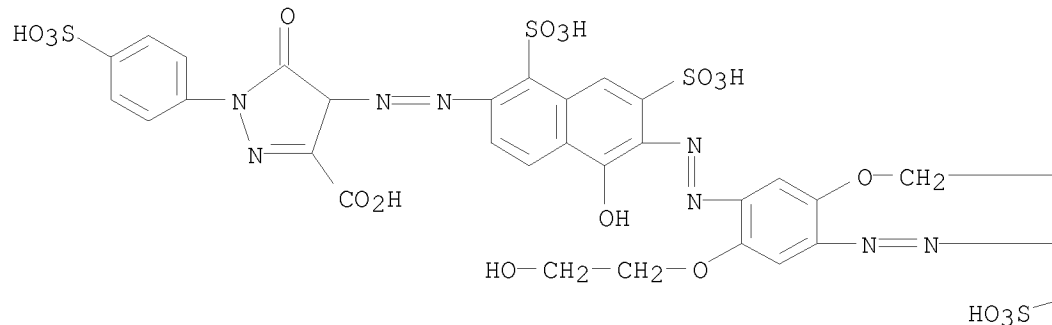
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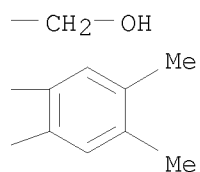
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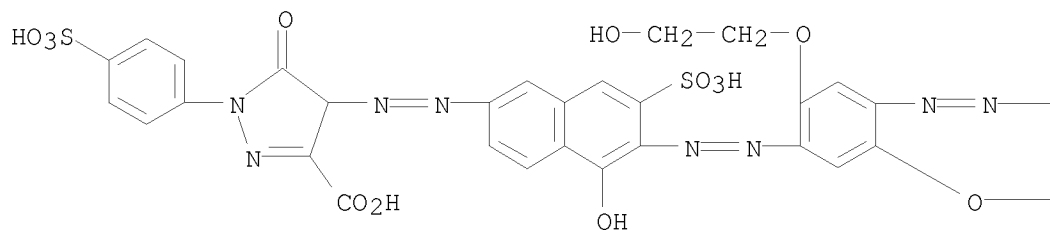
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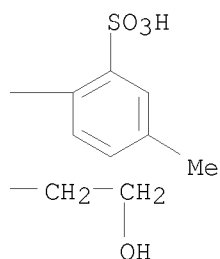
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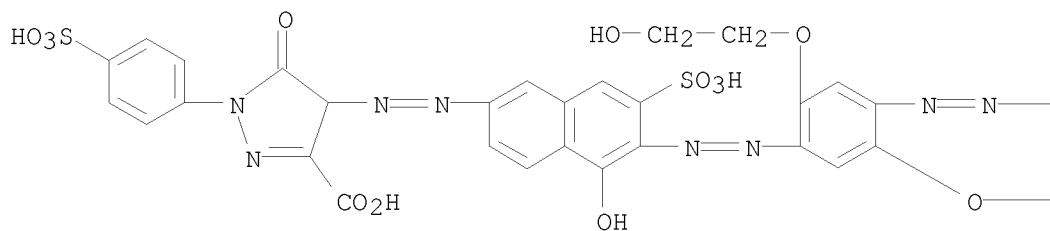
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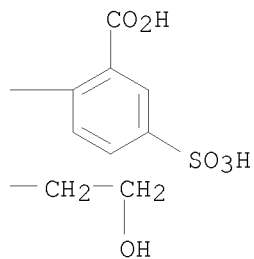


RN 852909-54-7 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(2-carboxy-4-sulfo-phenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfo-phenyl)- (CA INDEX NAME)

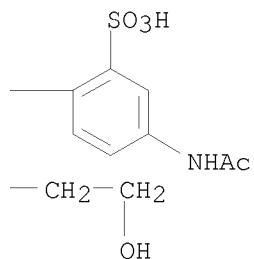
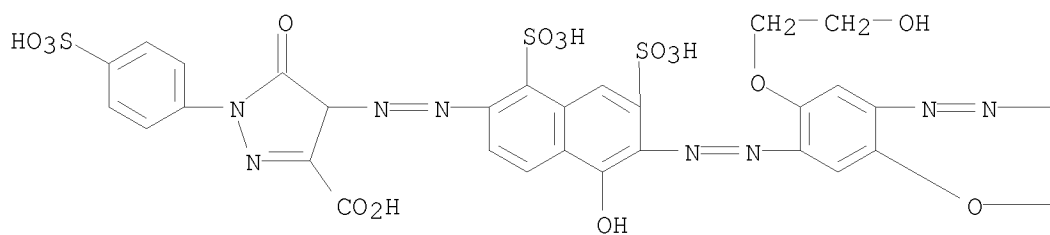
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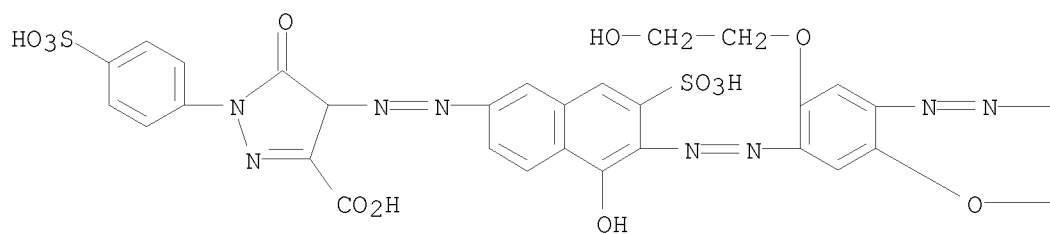
RN 852909-55-8 CAPLUS

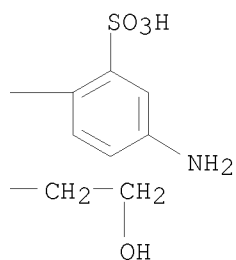
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(4-(acetylamino)-2-sulfophenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-(CA INDEX NAME)



RN 852909-56-9 CAPLUS

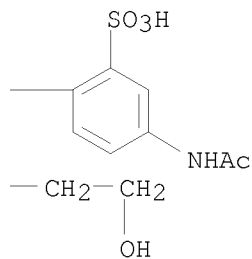
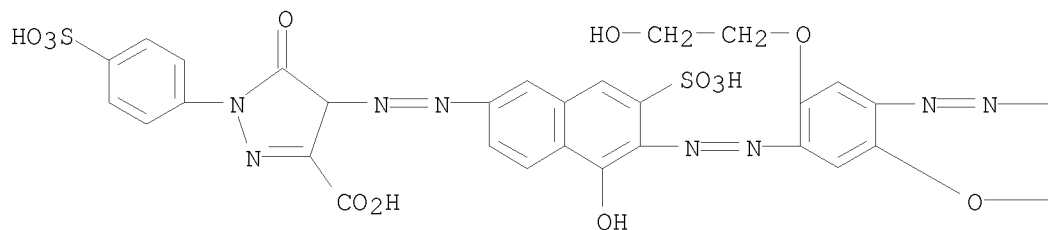
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(4-amino-2-sulfophenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-(CA INDEX NAME)





RN 852909-57-0 CAPLUS

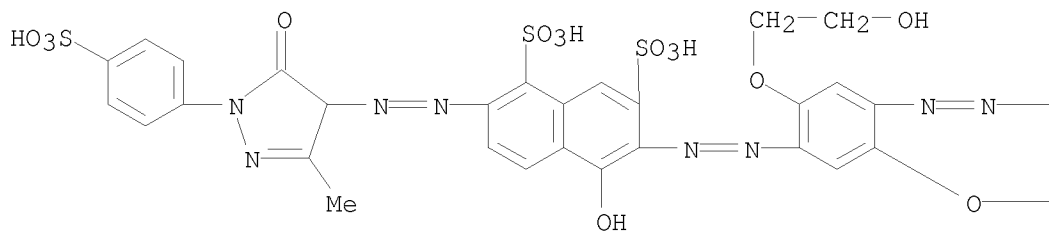
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-[4-(acetylamino)-2-sulfophenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)



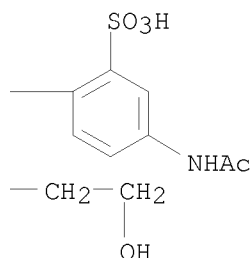
RN 852909-58-1 CAPLUS

CN 1,7-Naphthalenedisulfonic acid, 6-[2-[4-[2-[4-(acetylamino)-2-sulfophenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-2-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-5-hydroxy- (CA INDEX NAME)

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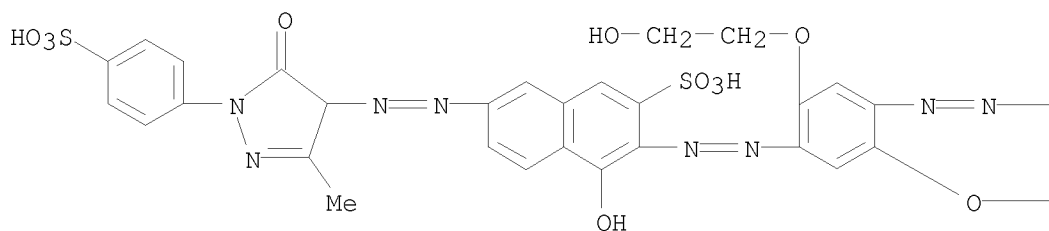
PAGE 1-B



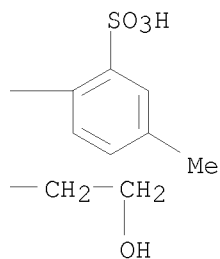
RN 852909-59-2 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methyl-2-sulfophenyl)diazenyl]phenyl]diazenyl]-7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-4-hydroxy- (CA INDEX NAME)

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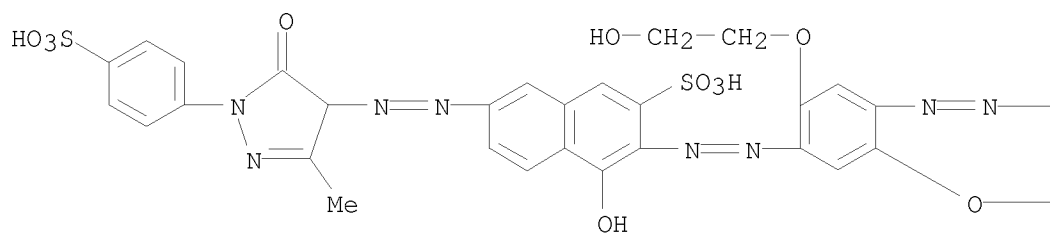
PAGE 1-B



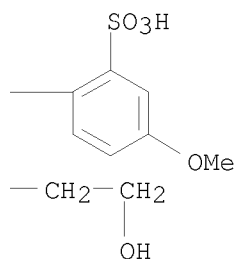
RN 852909-60-5 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methoxy-2-sulfophenyl)diazenyl]phenyl]diazenyl]-7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-4-hydroxy- (CA INDEX NAME)

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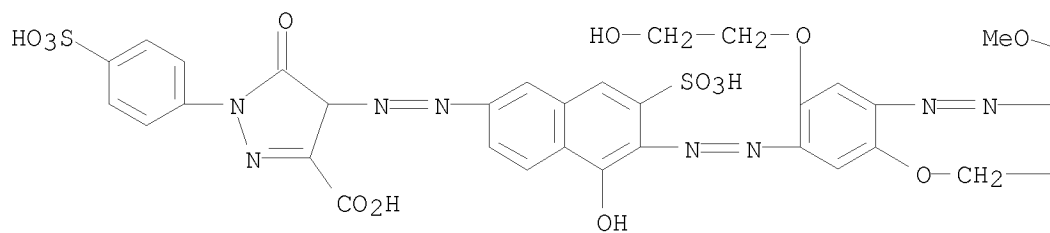


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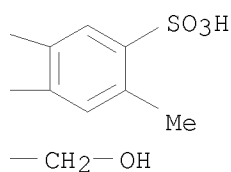


RN 852909-61-6 CAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(2-methoxy-5-methyl-4-sulfophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

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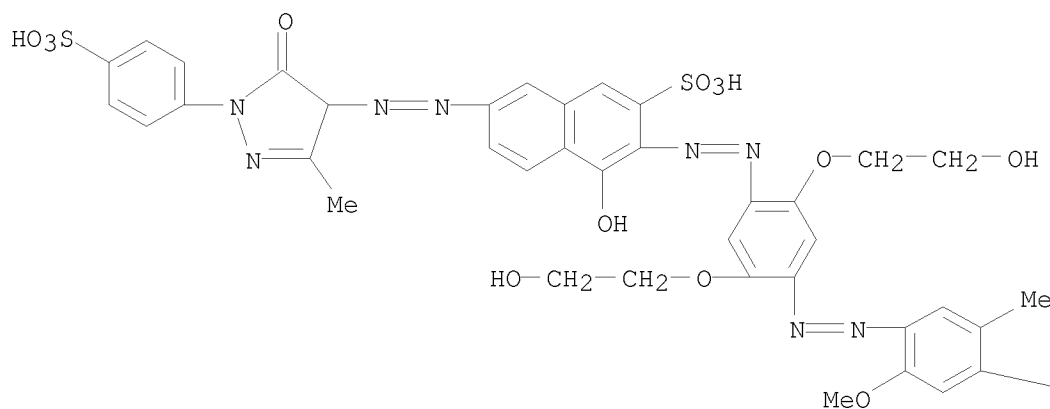


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RN 852909-62-7 CAPLUS
 CN 2-Naphthalenesulfonic acid, 3-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(2-methoxy-5-methyl-4-sulfophenyl)diazenyl]phenyl]diazenyl]-7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-4-hydroxy- (CA INDEX NAME)

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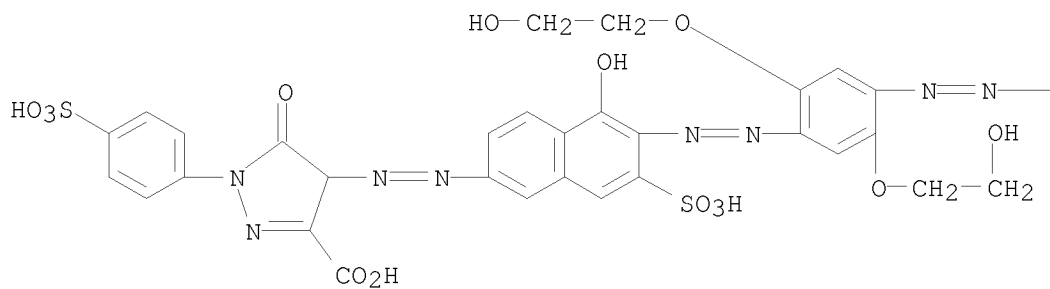


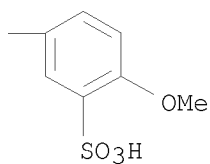
PAGE 1-B

—SO₃H

RN 852909-63-8 CAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methoxy-3-sulfophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

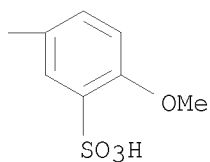
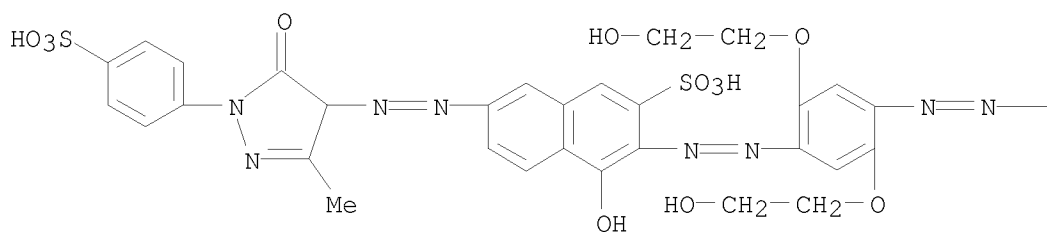
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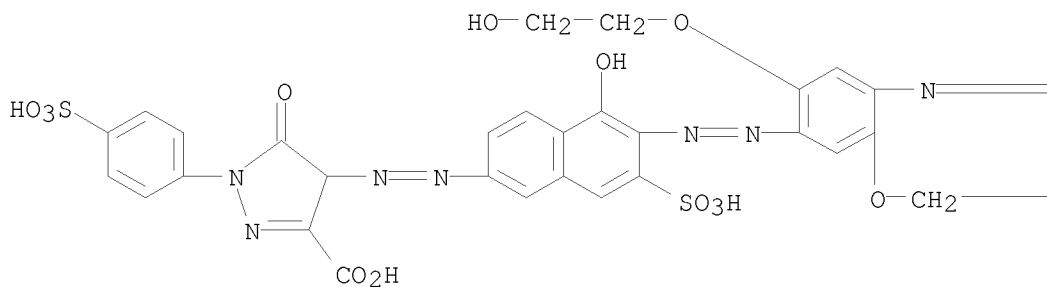
RN 852909-64-9 CAPLUS

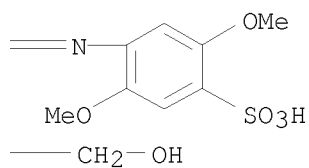
CN 2-Naphthalenesulfonic acid, 3-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methoxy-3-sulfophenyl)diazenyl]phenyl]diazenyl]-7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-4-hydroxy- (CA INDEX NAME)



RN 852909-65-0 CAPLUS

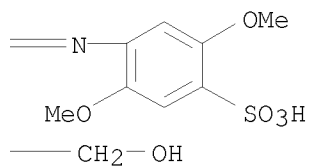
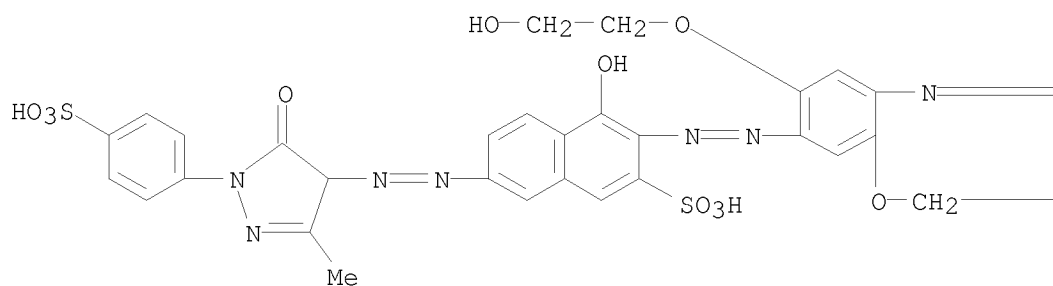
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(2,5-dimethoxy-4-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)





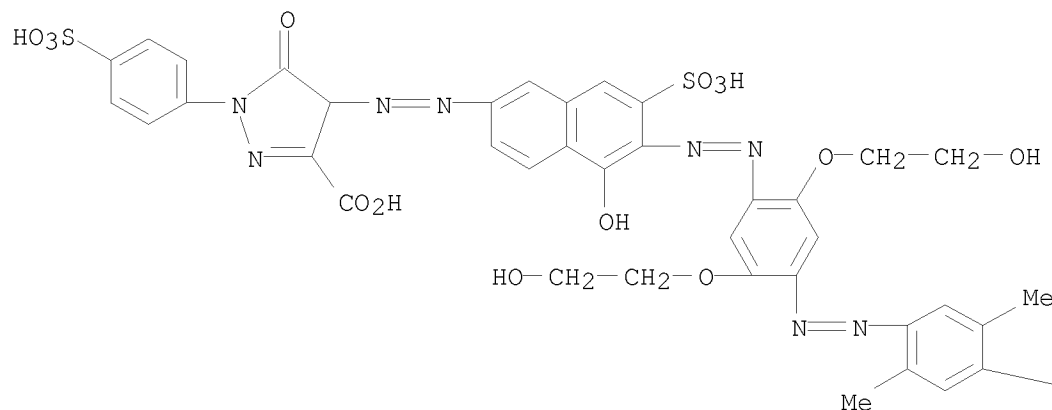
RN 852909-66-1 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-3-[2-[4-[2-(2,5-dimethoxy-4-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-4-hydroxy- (CA INDEX NAME)



RN 852909-67-2 CAPLUS

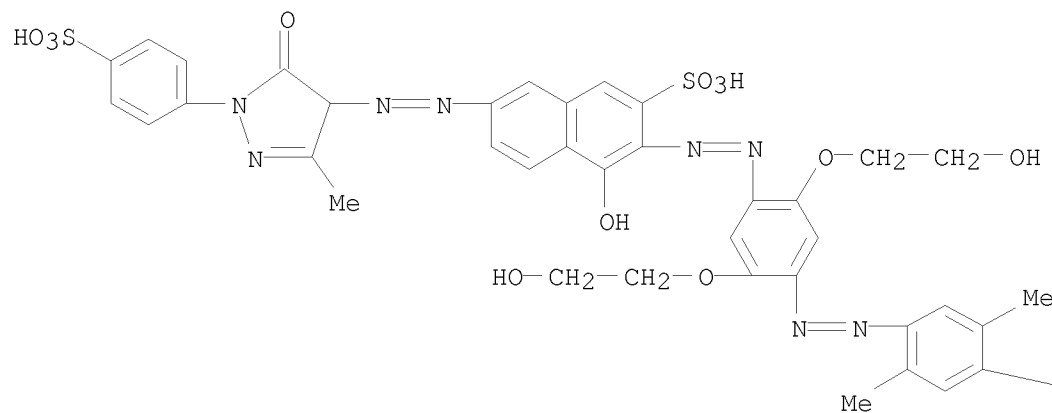
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(2,5-dimethyl-4-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)



—SO₃H

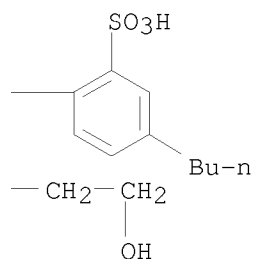
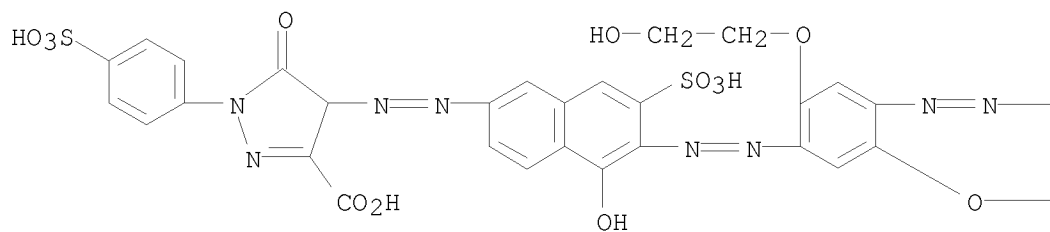
RN 852909-68-3 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-3-[2-[4-[2-(2,5-dimethyl-4-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-4-hydroxy- (CA INDEX NAME)



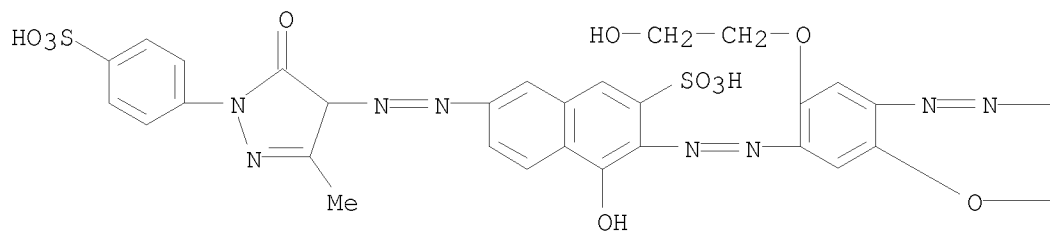
—SO₃H

RN 852909-69-4 CAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(4-butyl-2-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

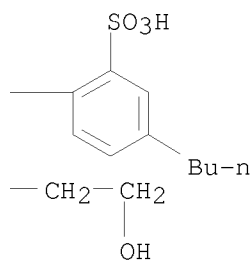


RN 852909-70-7 CAPLUS
 CN 2-Naphthalenesulfonic acid, 3-[2-[4-[2-(4-butyl-2-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-4-hydroxy- (CA INDEX NAME)

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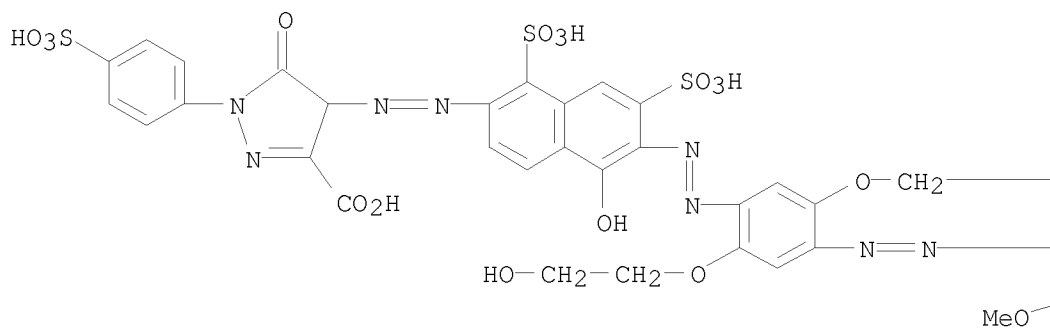
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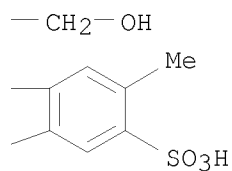


RN 852909-71-8 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(2-methoxy-5-methyl-4-sulfophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

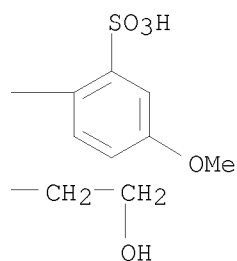
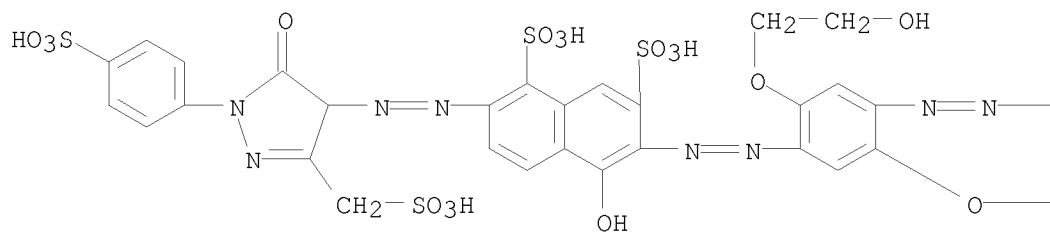
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RN 852909-72-9 CAPLUS

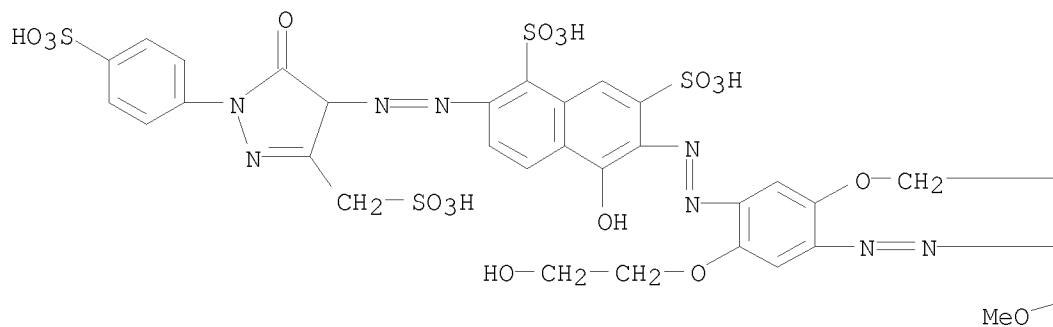
CN 1,7-Naphthalenedisulfonic acid, 6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methoxy-2-sulfophenyl)diazenyl]phenyl]diazenyl]-2-[2-[4,5-dihydro-5-oxo-3-(sulfomethyl)-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-5-hydroxy- (CA INDEX NAME)



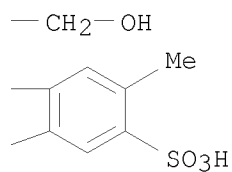
RN 852909-73-0 CAPLUS

CN 1,7-Naphthalenedisulfonic acid, 6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(2-methoxy-5-methyl-4-sulfophenyl)diazenyl]phenyl]diazenyl]-2-[2-[4,5-dihydro-5-oxo-3-(sulfomethyl)-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-5-hydroxy- (CA INDEX NAME)

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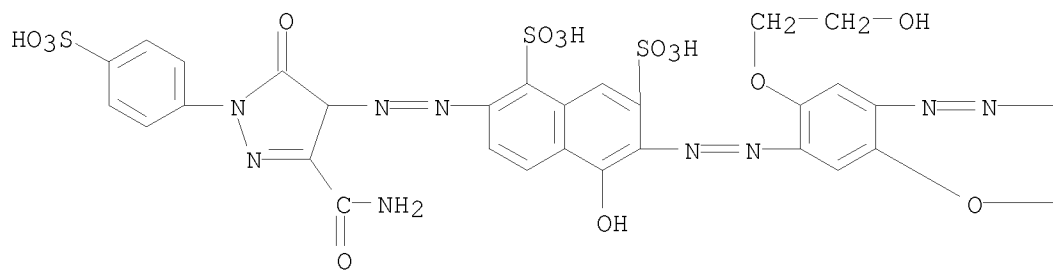


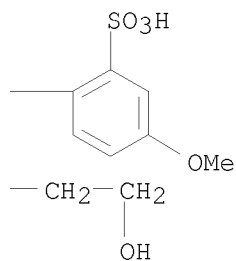
PAGE 1-B



RN 852909-74-1 CAPLUS
 CN 1,7-Naphthalenedisulfonic acid, 2-[2-[3-(aminocarbonyl)-4,5-dihydro-5-oxo-1-(4-sulfohenyl)-1H-pyrazol-4-yl]diazenyl]-6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methoxy-2-sulfohenyl)diazenyl]phenyl]diazenyl]-5-hydroxy- (CA INDEX NAME)

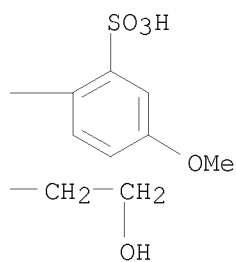
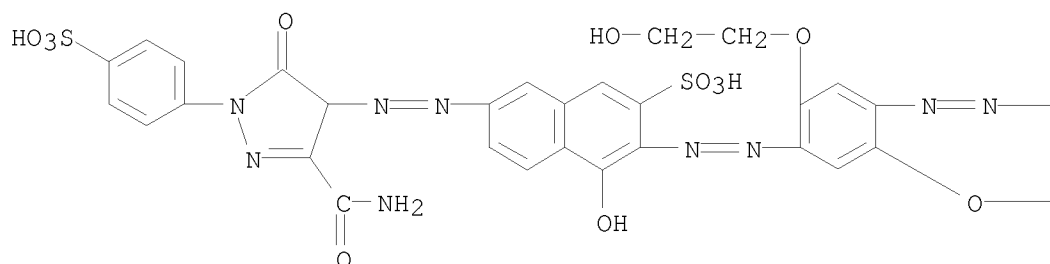
PAGE 1-A





RN 852909-75-2 CAPLUS

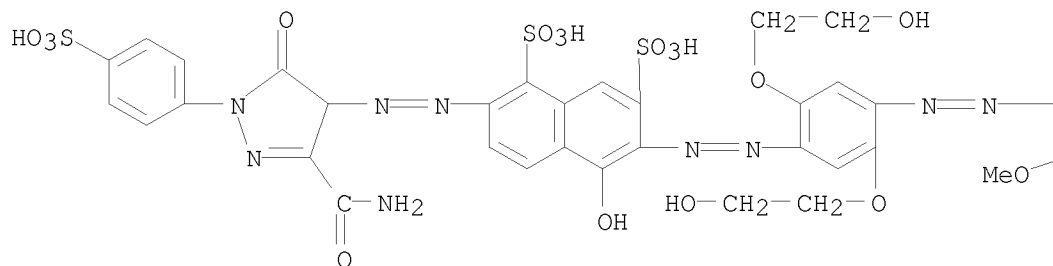
CN 2-Naphthalenesulfonic acid, 7-[2-[3-(aminocarbonyl)-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-3-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methoxy-2-sulfophenyl)diazenyl]phenyl]diazenyl]-4-hydroxy- (CA INDEX NAME)



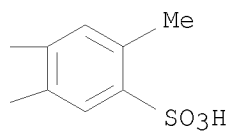
RN 852909-76-3 CAPLUS

CN 1,7-Naphthalenedisulfonic acid, 2-[2-[3-(aminocarbonyl)-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(2-methoxy-5-methyl-4-sulfophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy- (CA INDEX NAME)

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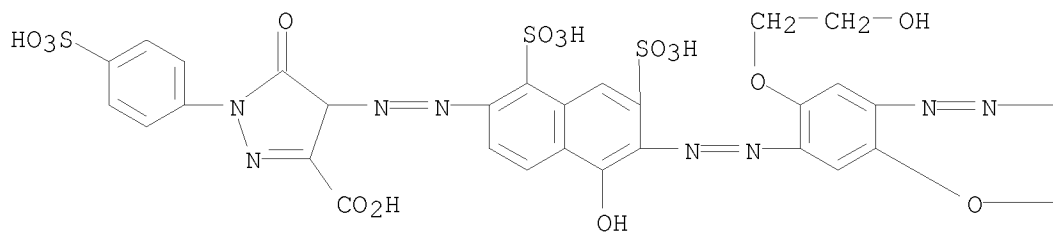


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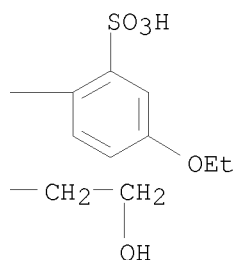


RN 852909-77-4 CAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(4-ethoxy-2-sulphophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulphophenyl)- (CA INDEX NAME)

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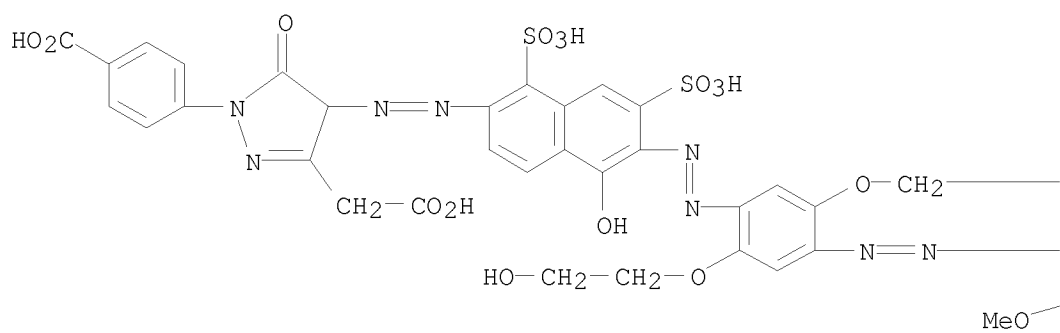


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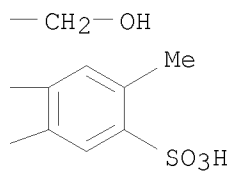


RN 852909-78-5 CAPLUS
 CN 1H-Pyrazole-3-acetic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(2-methoxy-5-methyl-4-sulphophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-1-(4-carboxyphenyl)-4,5-dihydro-5-oxo- (CA INDEX NAME)

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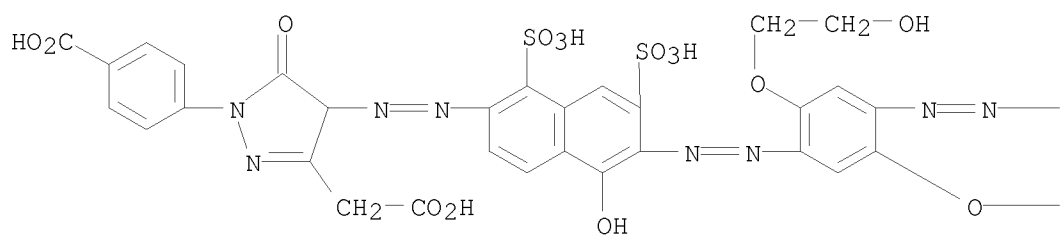


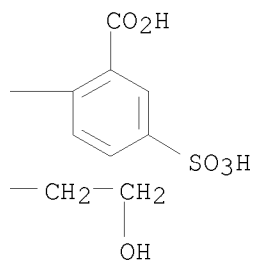
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RN 852909-79-6 CAPLUS
 CN 1H-Pyrazole-3-acetic acid, 1-(4-carboxyphenyl)-4-[2-[6-[2-[4-[2-(2-carboxy-4-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo- (CA INDEX NAME)

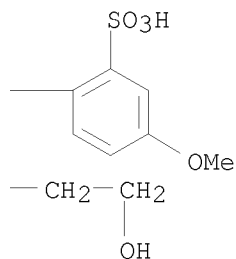
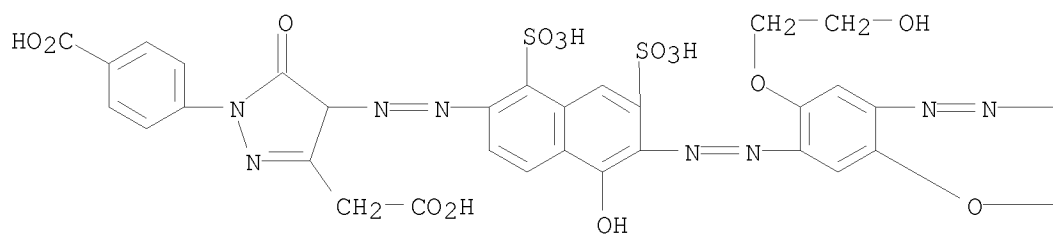
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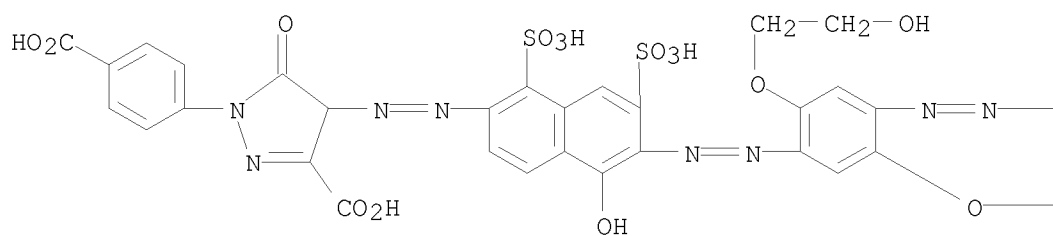
RN 852909-80-9 CAPLUS

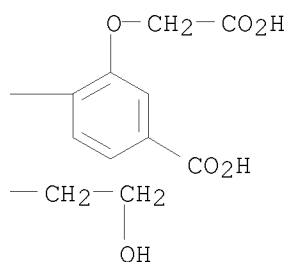
CN 1H-Pyrazole-3-acetic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methoxy-2-sulfophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-1-(4-carboxyphenyl)-4,5-dihydro-5-oxo- (CA INDEX NAME)



RN 852909-81-0 CAPLUS

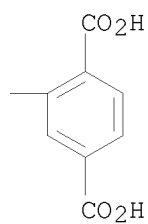
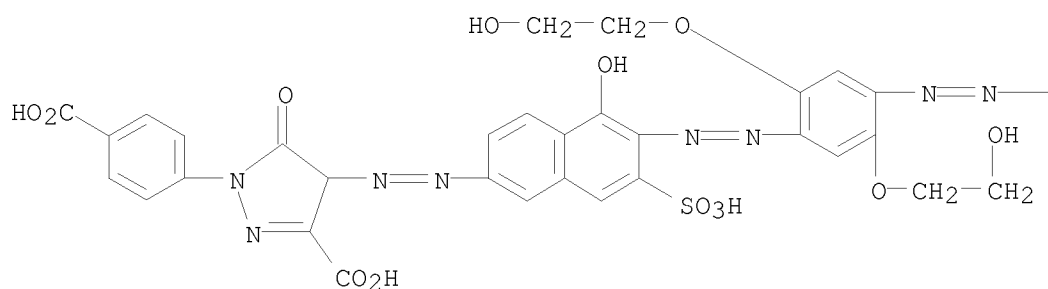
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-[4-carboxy-2-(carboxymethoxy)phenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-1-(4-carboxyphenyl)-4,5-dihydro-5-oxo- (CA INDEX NAME)





RN 852909-82-1 CAPLUS

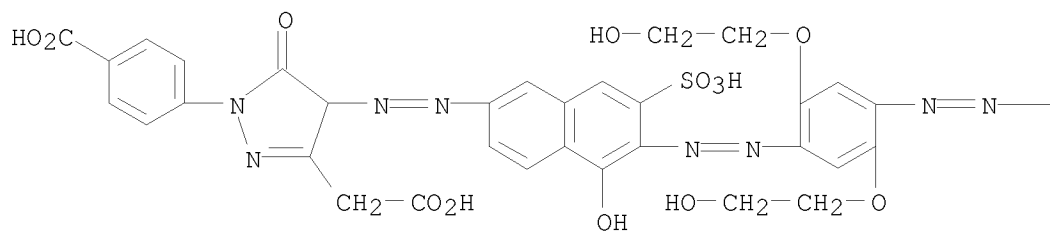
CN 1,4-Benzenedicarboxylic acid, 2-[2-[4-[2-[6-[2-[3-carboxy-1-(4-carboxyphenyl)-4,5-dihydro-5-oxo-1H-pyrazol-4-yl]diazenyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-
(CA INDEX NAME)



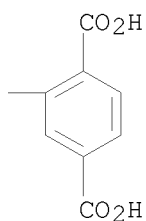
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(CA INDEX NAME)

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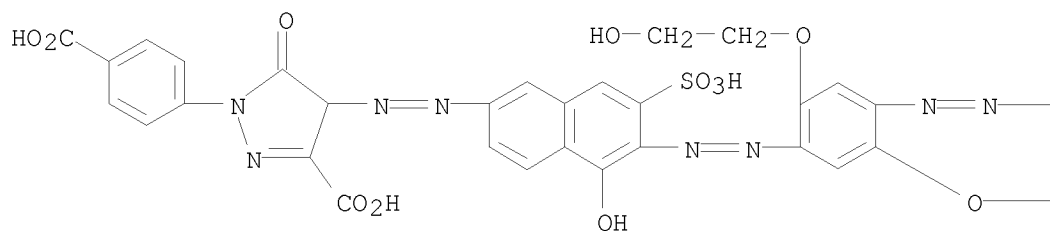


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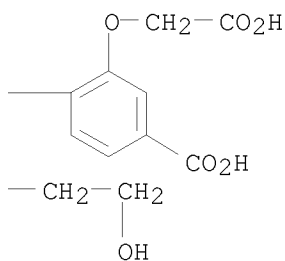


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 CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(4-carboxy-2-(carboxymethoxy)phenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-1-(4-carboxyphenyl)-4,5-dihydro-5-oxo- (CA INDEX NAME)

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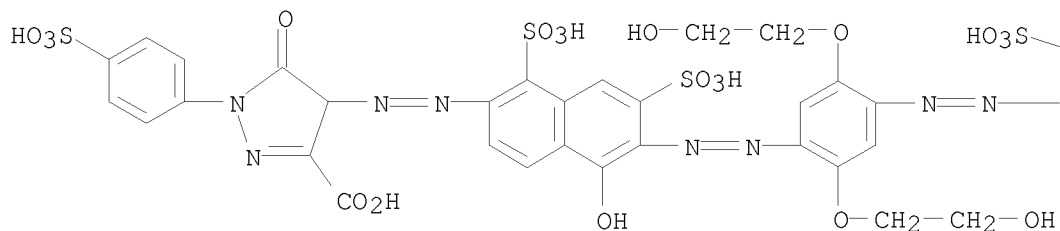


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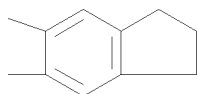


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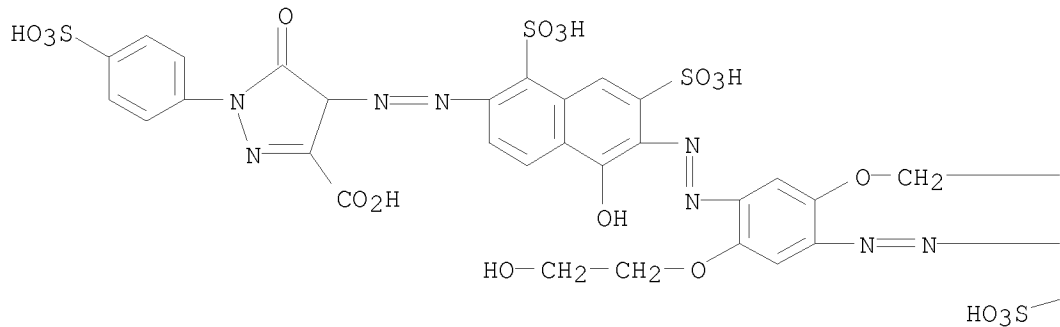


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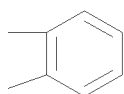
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 CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(2-sulfophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

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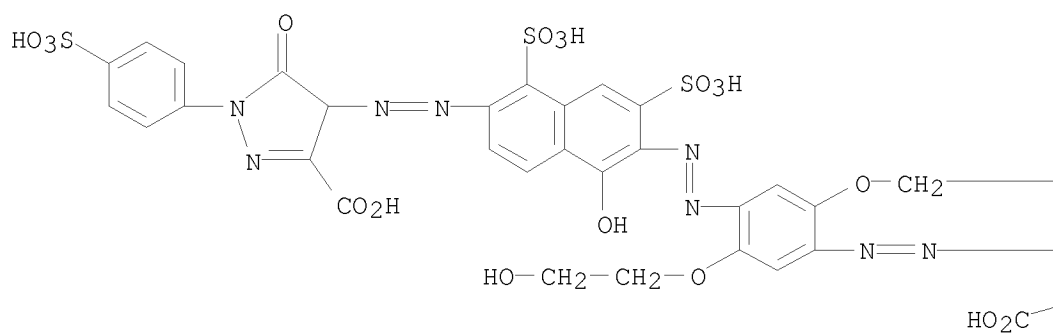
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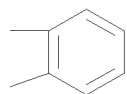
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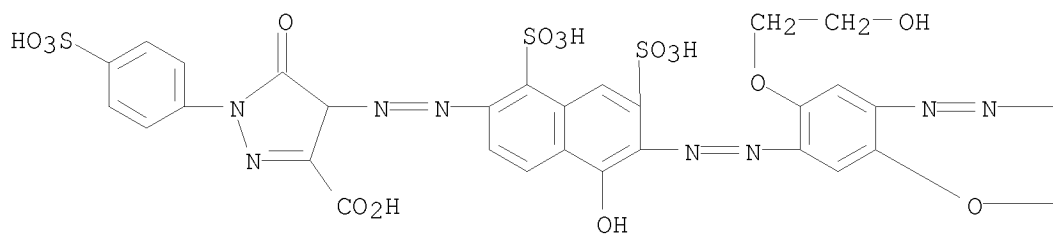
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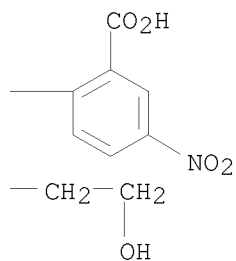


RN 852909-88-7 CAPLUS

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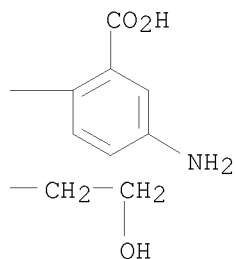
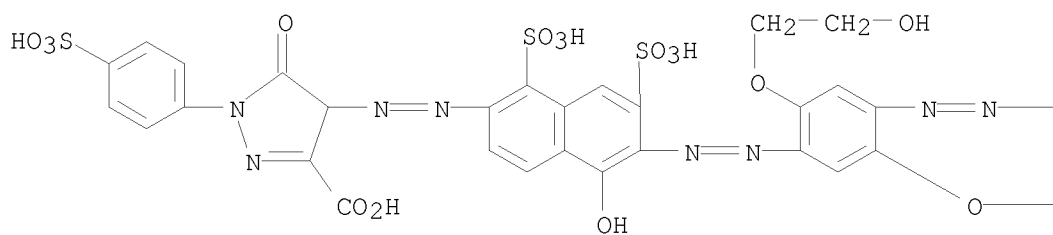
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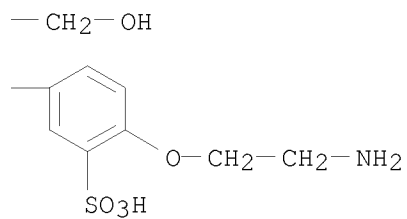
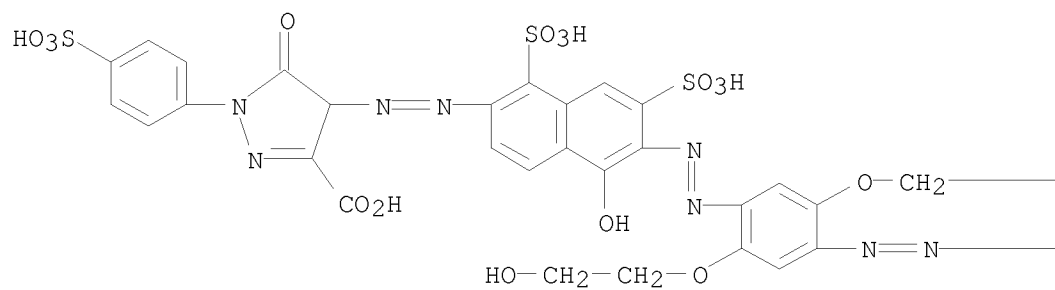
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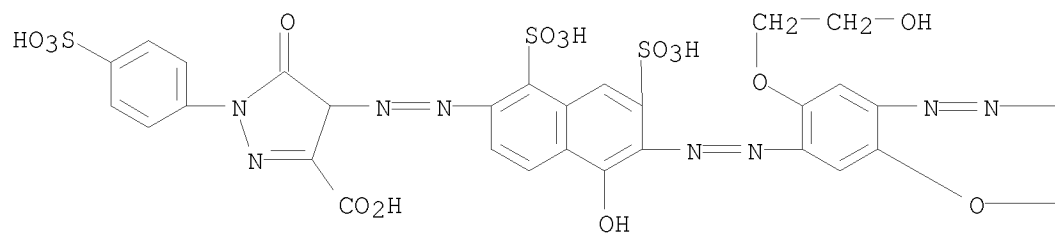
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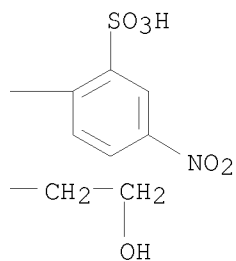
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-[4-(2-aminoethoxy)-3-sulfophenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-(CA INDEX NAME)



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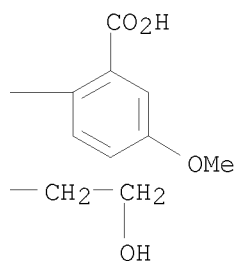
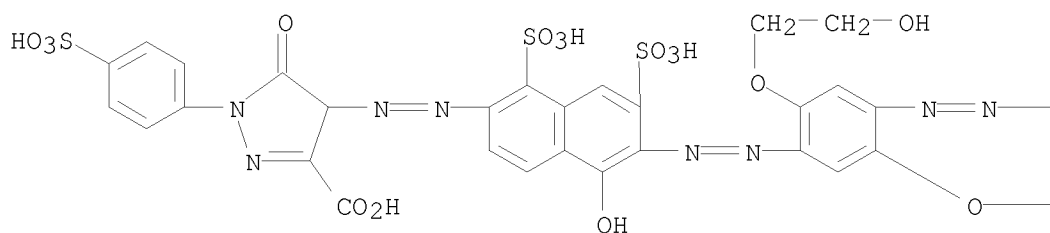
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-nitro-2-sulfo-phenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfo-phenyl)- (CA INDEX NAME)





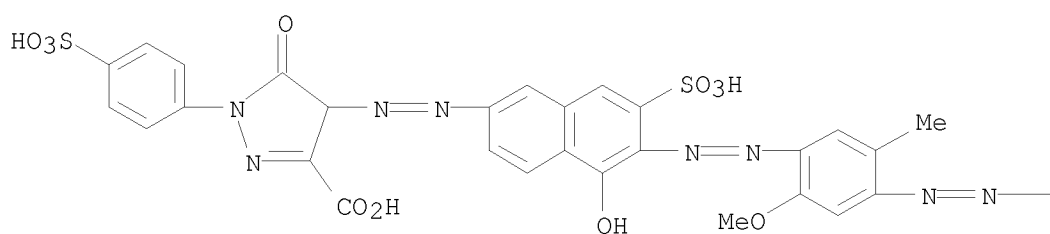
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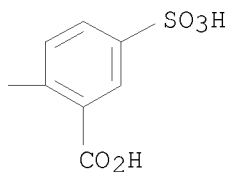
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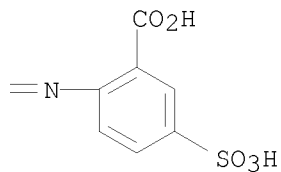
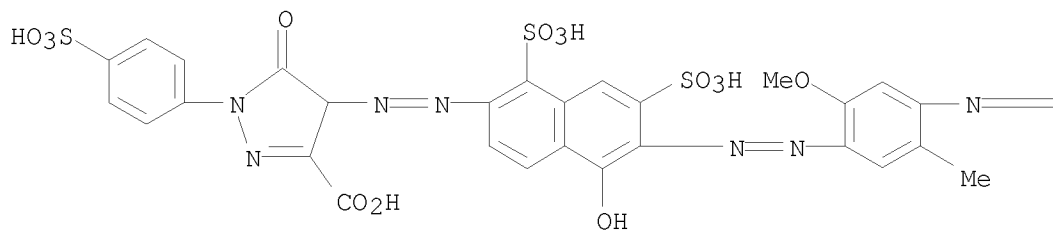
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(2-carboxy-4-sulfohenyl)diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfohenyl)-(CA INDEX NAME)





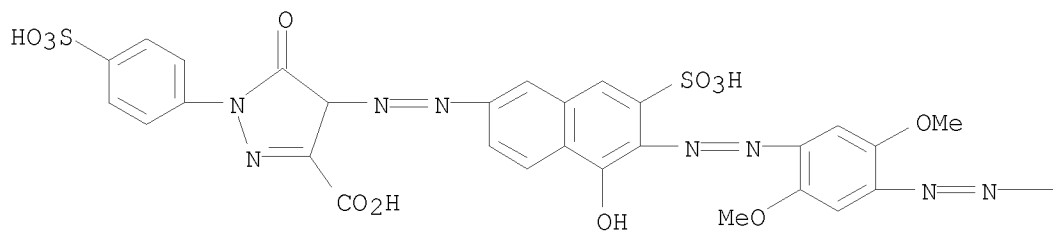
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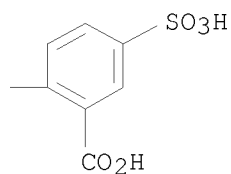
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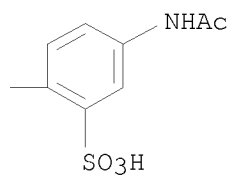
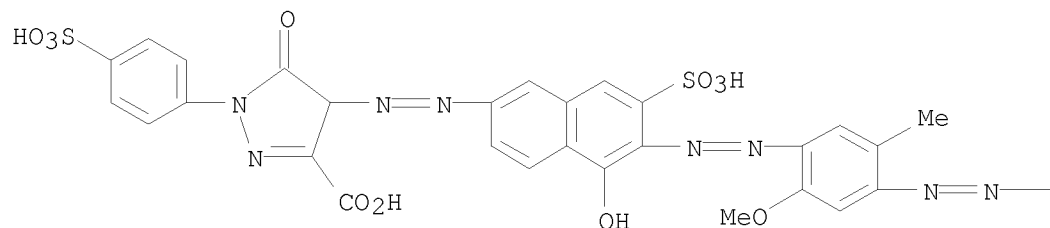
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(2-carboxy-4-sulfophenyl)diazenyl]-2,5-dimethoxyphenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)





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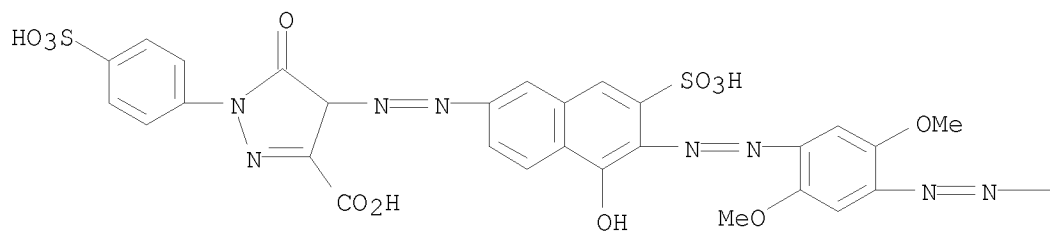
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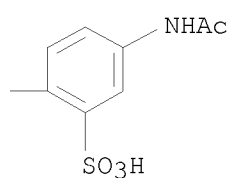
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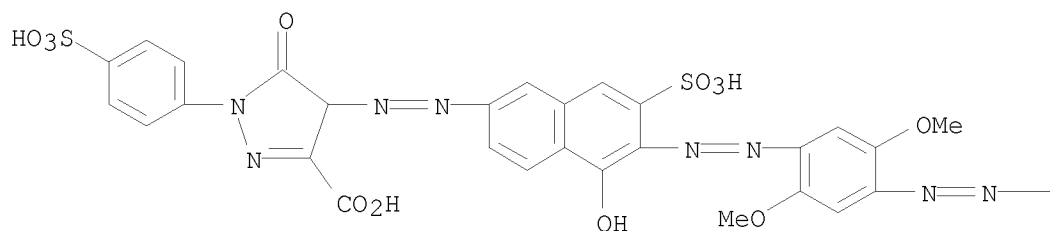


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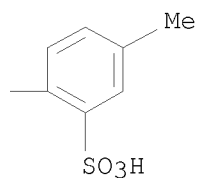


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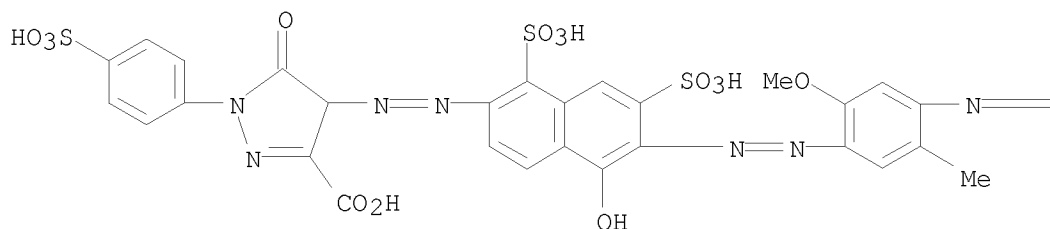
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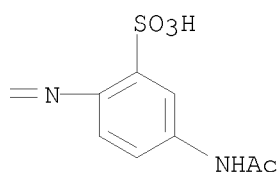
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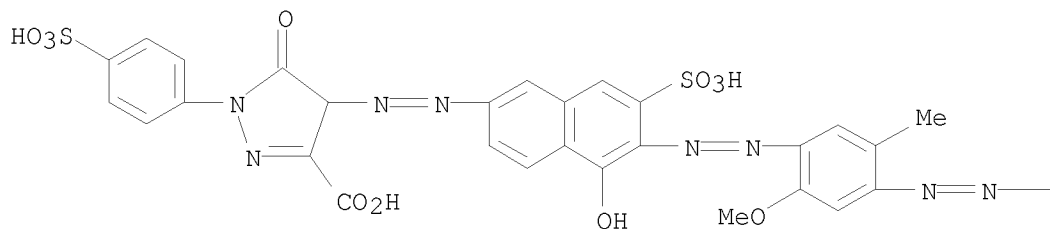


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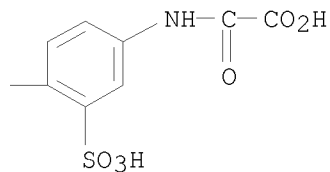


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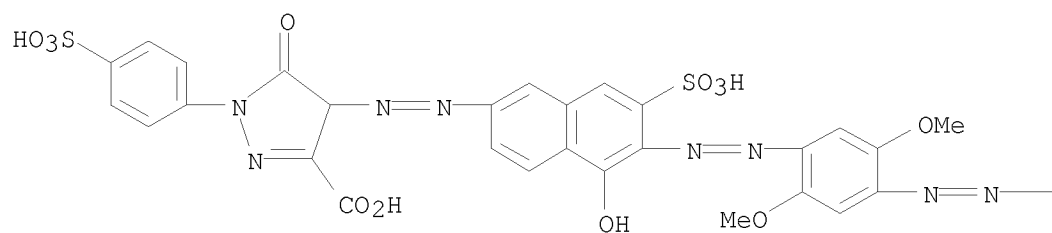
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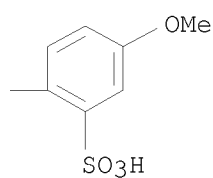
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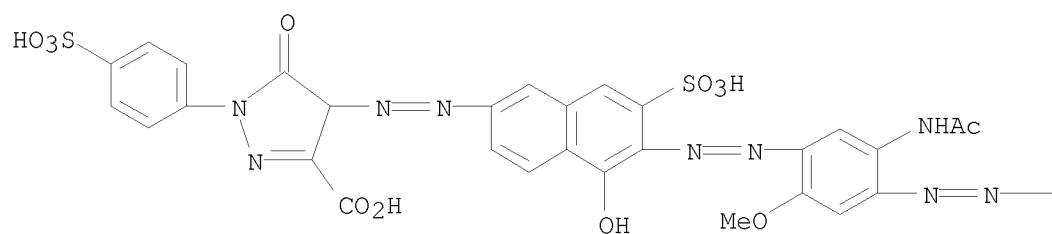


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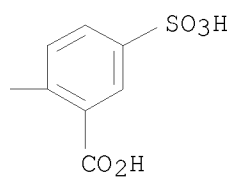


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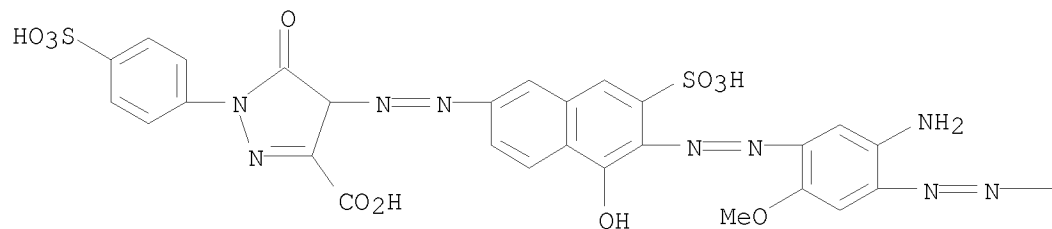
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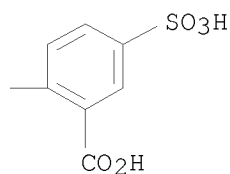
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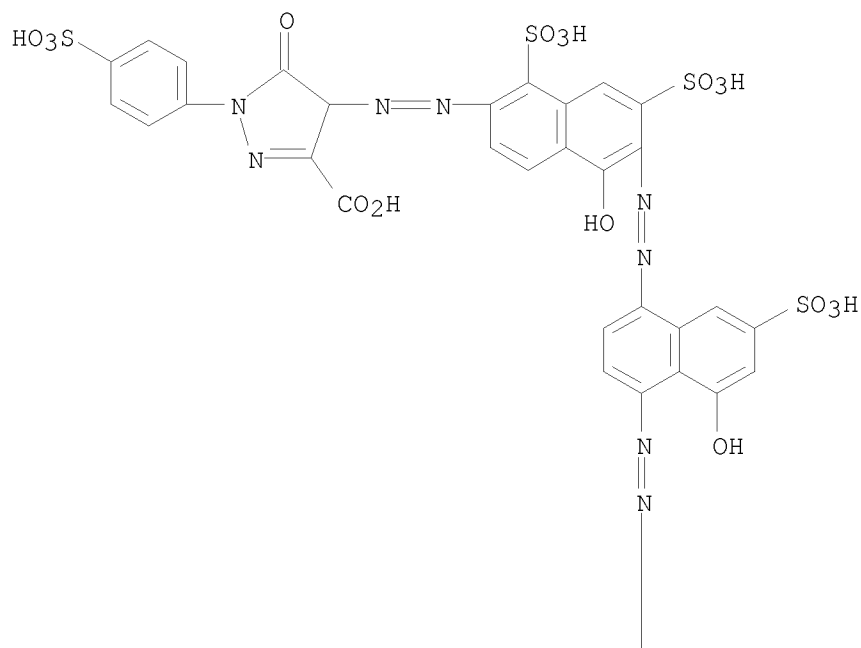
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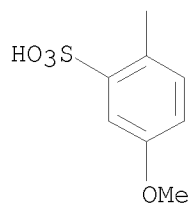
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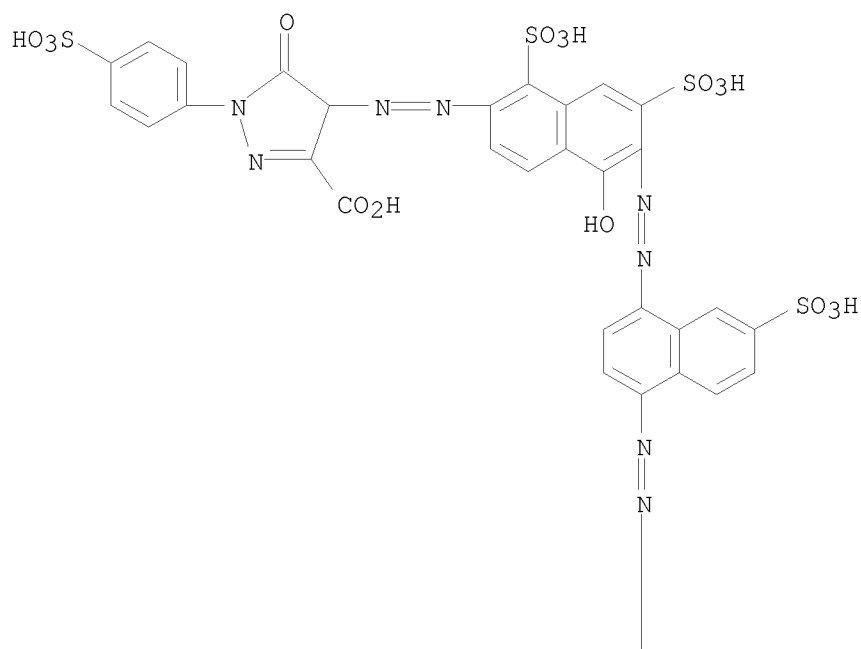


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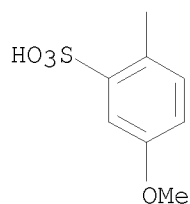


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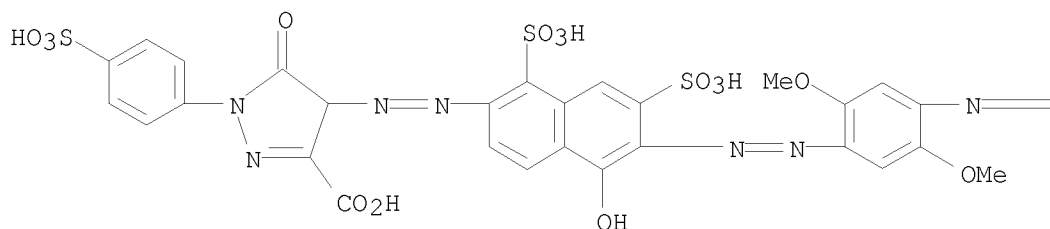


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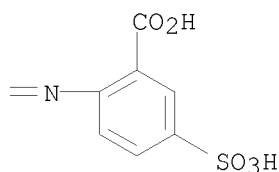


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REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 9 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:305188 CAPLUS

DOCUMENT NUMBER: 140:322867

TITLE: Disazo dyes, inks and ink-jet recording method

INVENTOR(S): Mikoshiba, Hisashi; Omatsu, Tadashi; Suzuki, Makoto; Matsuoka, Koushin; Motoki, Masuji

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 83 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

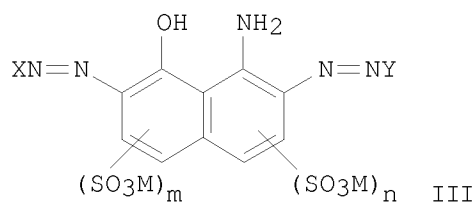
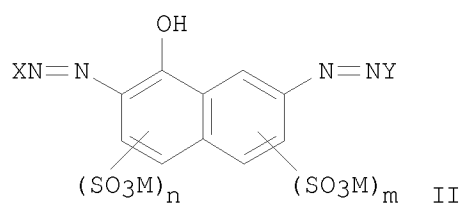
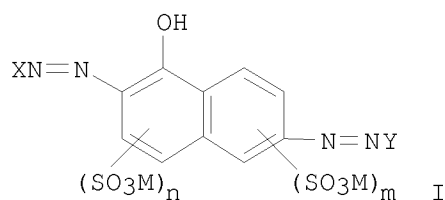
PATENT INFORMATION:

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JP 4119621	B2	20080716		
JP 2002302619	A	20021018	JP 2002-5043	20020111
JP 4136375	B2	20080820		
JP 2002327131	A	20021115	JP 2002-5044	20020111
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EP 1229083	A2	20020807	EP 2002-2270	20020130
EP 1229083	A3	20020821		
EP 1229083	B1	20040915		
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US 20030195342	A1	20031016	US 2003-349978	20030124
US 6903198	B2	20050607		
US 20030226221	A1	20031211	US 2003-350083	20030124
US 6756488	B2	20040629		

PRIORITY APPLN. INFO.:

JP 2001-24470	A	20010131
JP 2001-54764	A	20010228
JP 2001-69497	A	20010312
JP 2002-5043	A	20020111
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EP 2002-2270	A3	20020130
US 2002-59380	A3	20020131

OTHER SOURCE(S): MARPAT 140:322867
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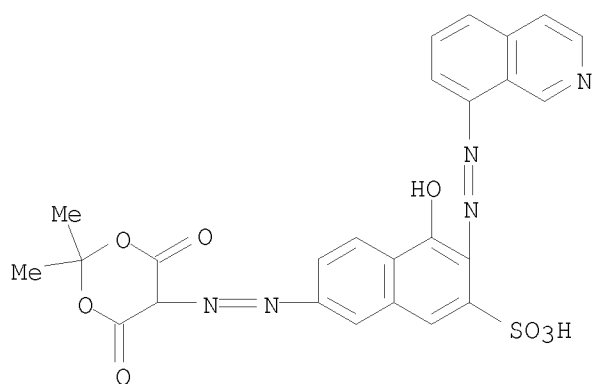
AB Disclosed are black disazo dyes I, II, and III (m, n = 0, 1; M = H, monovalent ion; X, Y = heterocyclic group). The dyes are suitable for water-based jet-printing inks with improved application and image properties. In an example, J-acid was diazotized and coupled with a pyrazole derivative to give a monoazo compound which was then coupled with diazotized 8-aminoquinoline to form a black disazo dye.

IT 678968-67-7

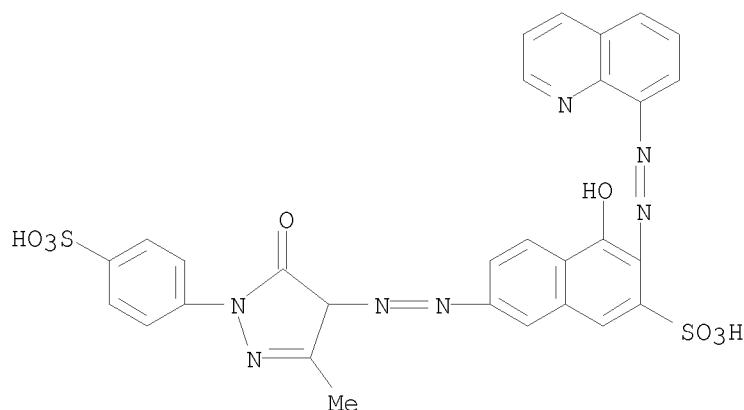
RL: TEM (Technical or engineered material use); USES (Uses)
(dye; black disazo dyes for water-based jet-printing inks)

RN 678968-67-7 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-[2-(2,2-dimethyl-4,6-dioxo-1,3-dioxan-5-yl)diazenyl]-4-hydroxy-3-[2-(8-isoquinolinyl)diazenyl]- (CA INDEX NAME)



IT 444996-96-7P
 RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (production of black disazo dyes for water-based jet-printing inks)
 RN 444996-96-7 CAPLUS
 CN 2-Naphthalenesulfonic acid, 7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-4-hydroxy-3-[2-(8-quinolinyl)diazenyl]- (CA INDEX NAME)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 10 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2002:591733 CAPLUS
 DOCUMENT NUMBER: 137:141846
 TITLE: Disazo dyes and jet printing inks containing them
 INVENTOR(S): Mikoshiba, Hisashi; Omatsu, Tadashi; Suzuki, Makoto; Matsuoka, Koushin; Motoki, Masuji
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 78 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

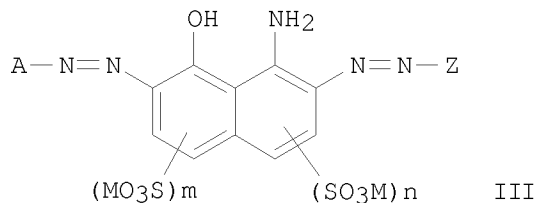
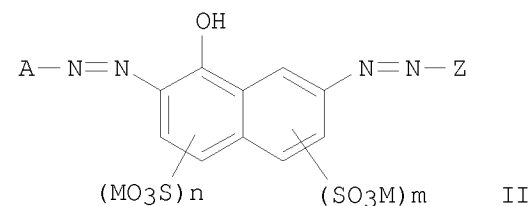
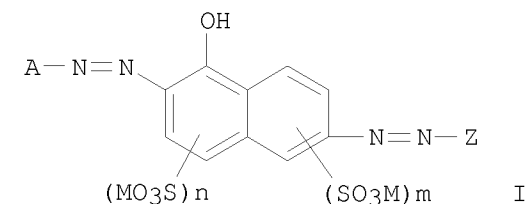
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1229083	A2	20020807	EP 2002-2270	20020130
EP 1229083	A3	20020821		

EP 1229083	B1	20040915		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2002265809	A	20020918	JP 2001-69497	20010312
JP 4119621	B2	20080716		
JP 2002302619	A	20021018	JP 2002-5043	20020111
JP 4136375	B2	20080820		
JP 2002327131	A	20021115	JP 2002-5044	20020111
JP 4136376	B2	20080820		
EP 1408091	A1	20040414	EP 2003-29417	20020130
EP 1408091	B1	20050921		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
AT 276320	T	20041015	AT 2002-2270	20020130
AT 305025	T	20051015	AT 2003-29417	20020130
US 20020170126	A1	20021121	US 2002-59380	20020131
US 6548649	B2	20030415		
US 20030195342	A1	20031016	US 2003-349978	20030124
US 6903198	B2	20050607		
US 20030226221	A1	20031211	US 2003-350083	20030124
US 6756488	B2	20040629		

PRIORITY APPLN. INFO.:

		JP 2001-24470	A	20010131
		JP 2001-54764	A	20010228
		JP 2001-69497	A	20010312
		JP 2002-5043	A	20020111
		JP 2002-5044	A	20020111
		EP 2002-2270	A3	20020130
		US 2002-59380	A3	20020131

GI



AB Disazo dyes (I, II, III; A, Z = monovalent heterocyclic group bonded to an azo group by a carbon atom of the monovalent heterocyclic group; m, n = 0, 1; M = H, monovalent pos. ion) are provided for use in jet-printing inks.

I-III are black dyes with excellent fastness and application properties. In an example, a black dye was prepared using J-acid as the first diazo component, p-(5-hydroxy-3-methyl-1-pyrazolyl)benzenesulfonic acid as the coupling component, and 8-aminoquinoline as the second diazo component.

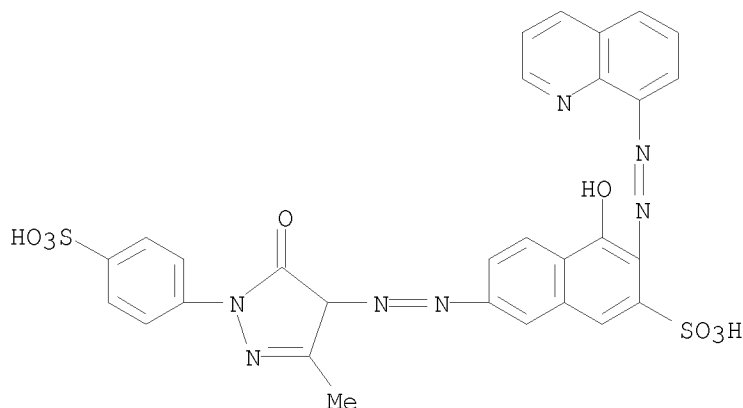
IT 444996-96-7P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(dye; production of black disazo dyes for jet printing inks)

RN 444996-96-7 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-4-hydroxy-3-[2-(8-quinolinyl)diazenyl]- (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 11 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2000:775319 CAPLUS

DOCUMENT NUMBER: 134:281675

TITLE: Preparation and characterisation of cellulose ion-exchangers bearing dimethyl/diethylamino hydroxy chloropropane groups

AUTHOR(S): Miky, Jehane A.; Abdel-Mohdy, F. A.

CORPORATE SOURCE: Textile Research Division, National Research Centre, Cairo, Egypt

SOURCE: Journal of the Textile Association (1999), 60(1), 35-40

CODEN: JTXAA9; ISSN: 0368-4636

PUBLISHER: K. P. Publisher

DOCUMENT TYPE: Journal

LANGUAGE: English

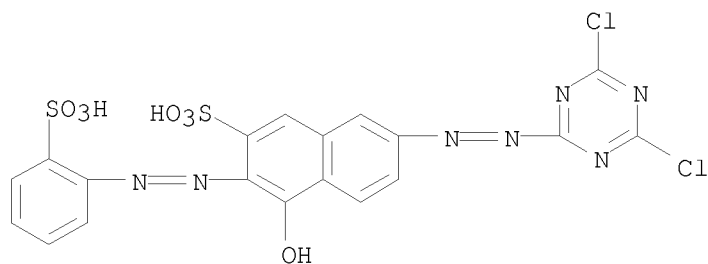
AB 1-Dimethylamino-2-hydroxy-3-chloropropane and 1-diethylamino-2-hydroxy-3-chloropropane were prepared by reacting epichlorohydrin with dimethylamine and diethylamine, resp. Starch/cellulose substrates were prepared by reacting the above compds. with starch, cellulose pulp, and cellulosic fabrics. The structural features of the prepared substrates were confirmed by IR and NMR spectrometry as well as by Mass spectroscopy. Evaluation of the prepared substrates as dye adsorbents using acid dye and reactive dye and as heavy metal adsorbents was studied under a variety of conditions. Maximum adsorption of acid and reactive dyes is obtained at pH 2, while maximum adsorption of Cu²⁺ ions is at pH 5 and Cr₂O₇²⁻ anions at pH 2.

IT 332919-94-5

RL: REM (Removal or disposal); PROC (Process)

(cellulose ion-exchangers having dimethyl/diethylamino hydroxy chloropropane groups for dye and heavy metal adsorbents)

RN 332919-94-5 CAPLUS
 CN 2-Naphthalenesulfonic acid, 7-[2-(4,6-dichloro-1,3,5-triazin-2-yl)diazenyl]-4-hydroxy-3-[2-(2-sulphophenyl)diazenyl]- (CA INDEX NAME)

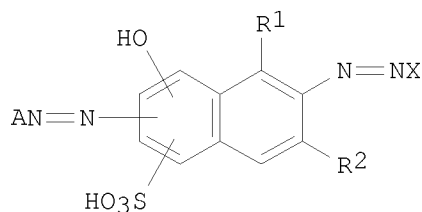


REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 12 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1996:404717 CAPLUS
 DOCUMENT NUMBER: 125:60950
 ORIGINAL REFERENCE NO.: 125:11695a,11698a
 TITLE: Reactive azo dyes, their preparation and use
 INVENTOR(S): Deitz, Rolf; Mueller, Bernhard; Tzikas, Athanassios
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
 SOURCE: Eur. Pat. Appl., 27 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 712905	A1	19960522	EP 1995-810702	19951108
EP 712905	B1	20010829		
R: BE, CH, DE, ES, FR, GB, IT, LI, PT				
TW 411357	B	20001111	TW 1995-84111442	19951027
ES 2161852	T3	20011216	ES 1995-810702	19951108
PT 712905	T	20020130	PT 1995-810702	19951108
CN 1130177	A	19960904	CN 1995-119286	19951115
CN 1067704	C	20010627		
US 5686584	A	19971111	US 1995-559263	19951115
JP 08209016	A	19960813	JP 1995-299594	19951117
JP 3804873	B2	20060802		
SG 49592	A1	20010116	SG 1996-442	19960125
HK 1005549	A1	20020208	HK 1998-104723	19980601
PRIORITY APPLN. INFO.:			CH 1994-3468	A 19941117
OTHER SOURCE(S):	MARPAT	125:60950		

GI



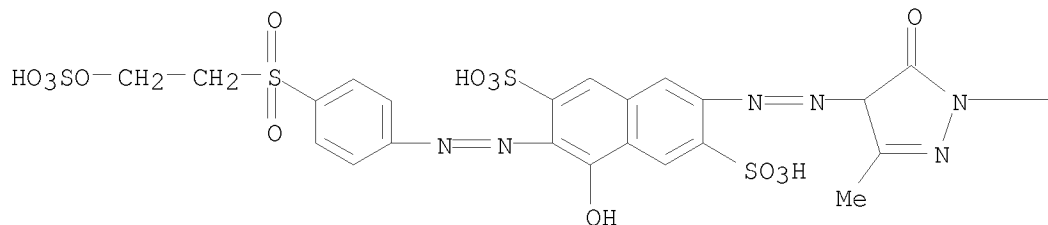
AB The dyes (I; A = fiber-reactive group; one of R1 and R2 is H and the other is sulfo; X = heterocyclic or naphthyl coupling component) are obtained from diazotized ANH2 coupled with an aminohydroxynaphthalenedisulfonic acid, the product of which is diazotized and coupled with XH. I have good fastness properties when used to dye or print cellulosics or N-containing fibrous substrates. Thus, 2-(4-aminophenylsulfonyl)ethyl H sulfate→6-amino-1-hydroxynaphthalene-3,5-disulfonic acid was obtained and diazotized and coupled with 5-carbamoyl-1-ethyl-6-hydroxy-4-methyl-2-pyridone to give a red dye which colored cellulose in fast orange shades.

IT 178397-15-4P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparation of reactive azo dyes for cellulosics)

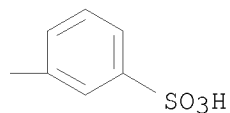
RN 178397-15-4 CAPLUS

CN 2,6-Naphthalenedisulfonic acid, 7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(3-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-4-hydroxy-3-[2-[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)

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L10 ANSWER 13 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1995:103640 CAPLUS

DOCUMENT NUMBER: 122:83944

ORIGINAL REFERENCE NO.: 122:15907a, 15910a

TITLE: Storage-stable black recording fluids

INVENTOR(S): Sano, Hideo; Murata, Jukichi; Yoneyama, Tomio

PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
 CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06192602	A	19940712	JP 1992-344707	19921224
JP 3579433	B2	20041020		
PRIORITY APPLN. INFO.:			JP 1992-344707	19921224
OTHER SOURCE(S):	MARPAT	122:83944		

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title fluids, useful for jet printing and giving light- and water-resistant images, contain aqueous media and ≥ 1 trisazo dye I [A = (substituted) phenylene or naphthylene; B = Ph, pyridyl, or pyrimidinyl substituted by amino, sulfo, carboxy, alkyl, alkoxy, OH, hydroxyalkyl, and/or other groups; R1-3 = H, alkyl, nitro, amino, acylamino, halo; M = alkali metal, NH₄, organic amine; n = 0-1]. An aqueous ink containing II 2.5, diethylene glycol 20, N-methylpyrrolidone 5, triethanolamine 3, and Me₂CHOH 3% showed good storage stability at 5° and 60°.

IT 159757-20-7

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(pigments; in storage-stable jet-printing inks with light and water resistance)

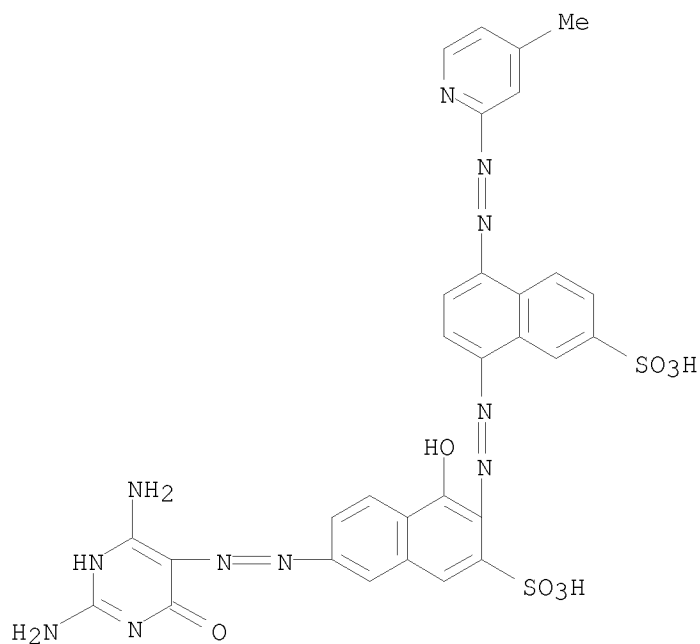
RN 159757-20-7 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-[2-(2,4-diamino-1,6-dihydro-6-oxo-5-pyrimidinyl)diazenyl]-4-hydroxy-3-[2-[4-[2-(4-methyl-2-pyridinyl)diazenyl]-7-sulfo-1-naphthalenyl]diazenyl]-, compd. with N,N-dimethylmethanamine (1:2) (CA INDEX NAME)

CM 1

CRN 159757-19-4

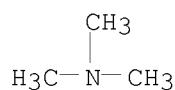
CMF C30 H23 N11 O8 S2



CM 2

CRN 75-50-3

CMF C3 H9 N



L10 ANSWER 14 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1990:38338 CAPLUS

DOCUMENT NUMBER: 112:38338

ORIGINAL REFERENCE NO.: 112:6621a,6624a

TITLE: Inks containing azo dyes with cyanopyrazolinone groups for jet printing

INVENTOR(S): Sakaeda, Takeshi; Suga, Yuko; Shirota, Katsuhiro

PATENT ASSIGNEE(S): Canon K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

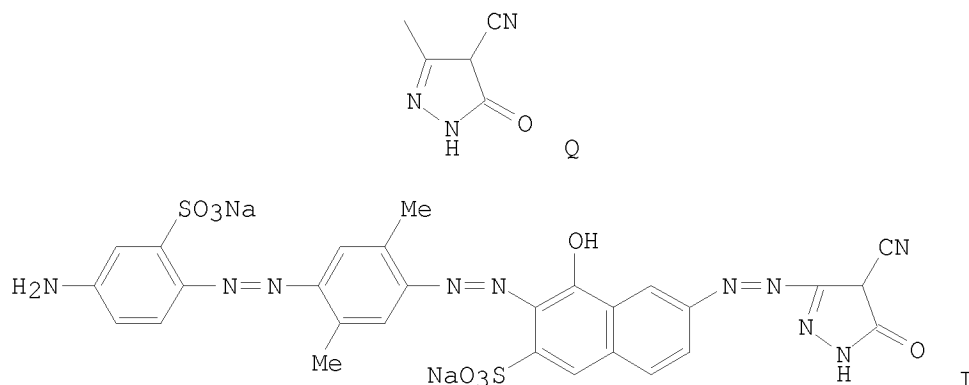
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01135880	A	19890529	JP 1987-294035	19871124
PRIORITY APPLN. INFO.: GI			JP 1987-294035	19871124



AB The title inks, anticlogging with good storage stability, comprise ≥ 1 of dyes containing structural unit Q in the mol. Thus, a composition of compound I 4, diethylene glycol 30, and H₂O 66% was anticlogging and storage-stable and produced light- and water-resistant prints on a variety of papers.

IT 124673-75-2

RL: USES (Uses)

(inks containing, black, for jet-printing)

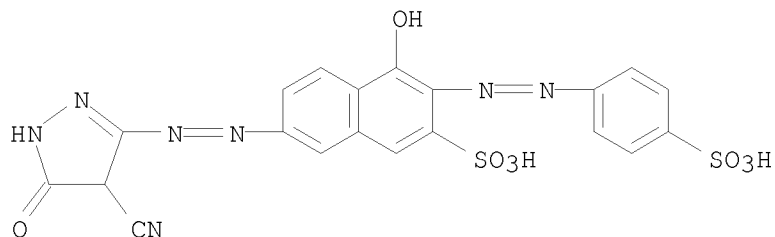
RN 124673-75-2 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-[2-(4-cyano-4,5-dihydro-5-oxo-1H-pyrazol-3-yl)diazenyl]-4-hydroxy-3-[2-(4-sulfophenyl)diazenyl]-, compd. with 2-aminoethanol (1:2) (CA INDEX NAME)

CM 1

CRN 124673-74-1

CMF C20 H13 N7 O8 S2



CM 2

CRN 141-43-5
CMF C2 H7 N O

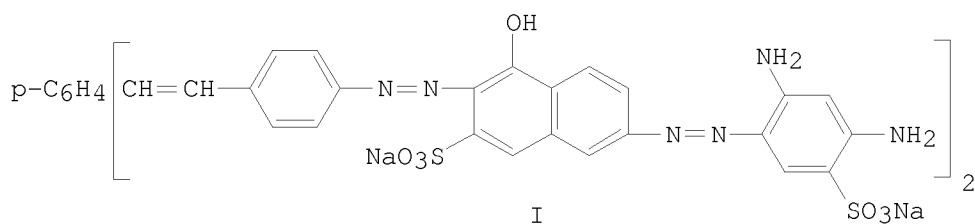
H₂N-CH₂-CH₂-OH

L10 ANSWER 15 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1986:151000 CAPLUS
DOCUMENT NUMBER: 104:151000
ORIGINAL REFERENCE NO.: 104:23905a,23908a
TITLE: Aqueous inks
INVENTOR(S): Shimada, Masaru; Sasaki, Masaomi; Hashimoto, Mitsuru
PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
SOURCE: Ger. Offen., 35 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3512836	A1	19851024	DE 1985-3512836	19850410
DE 3512836	C2	19890323		
JP 60215079	A	19851028	JP 1984-70135	19840410
JP 60215083	A	19851028	JP 1984-70139	19840410
US 4620875	A	19861104	US 1985-719451	19850403
PRIORITY APPLN. INFO.:			JP 1984-70135	A 19840410
			JP 1984-70139	A 19840410

OTHER SOURCE(S): MARPAT 104:151000
GI



AB Aqueous inks, especially black inks for jet printing, contain 0.5-30 parts stilbene structure-containing polyazo dye and 5-30 parts humectants. Thus, an ink

containing the azo dye I 3.0, glycerol 5.0, diethylene glycol 15.0, Na dehydroacetate 0.3, and H2O 76.7% had pH 10.1, surface tension 55.0 dyn/cm, viscosity 1.95 mPa-s at 25°, and good light and water resistance.

IT 101507-75-9

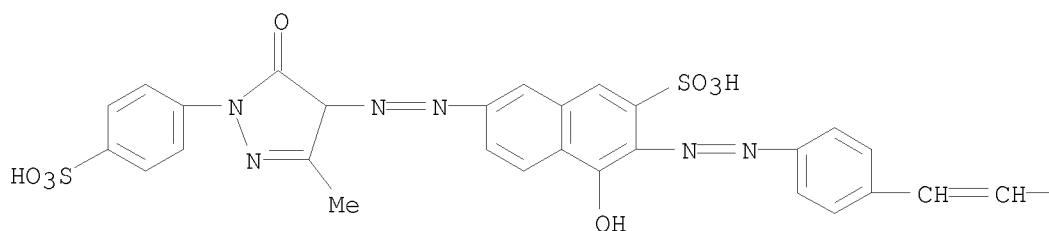
RL: USES (Uses)

(inks containing, for jet printing)

RN 101507-75-9 CAPLUS

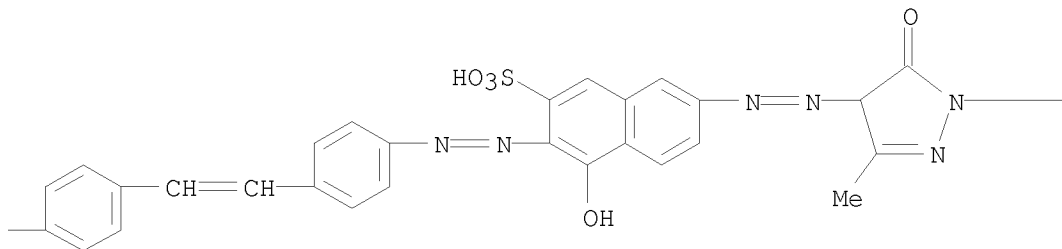
CN 2-Naphthalenesulfonic acid, 3,3'-[1,4-phenylenebis(2,1-ethenediyl-4,1-phenyleneazo)]bis[7-[[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]azo]-4-hydroxy-, tetrasodium salt (9CI) (CA INDEX NAME)

PAGE 1-A

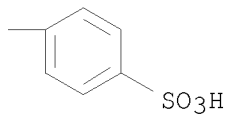


● 4 Na

PAGE 1-B



PAGE 1-C



L10 ANSWER 16 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1973:17541 CAPLUS

DOCUMENT NUMBER: 78:17541

ORIGINAL REFERENCE NO.: 78:2785a,2788a

TITLE: Dyeing cellulosic textiles with reactive dyes

INVENTOR(S): Andrew, Herbert Francis; Anderson, William Lambert;

PATENT ASSIGNEE(S): Marshall, William James
 SOURCE: Imperial Chemical Industries Ltd.
 Ger. Offen., 23 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2209107	A	19721005	DE 1972-2209107	19720225
US 3816069	A	19740611	US 1972-225435	19720211
ZA 7200926	A	19721025	ZA 1972-926	19720214
AU 7239102	A	19730823	AU 1972-39102	19720217
BE 779635	A1	19720821	BE 1972-114190	19720221
NL 7202360	A	19720829	NL 1972-2360	19720223
FR 2126401	A5	19721006	FR 1972-6330	19720224
FR 2126401	B1	19751024		
IT 951892	B	19730710	IT 1972-20985	19720224
BR 7201052	D0	19730823	BR 1972-1052	19720225

PRIORITY APPLN. INFO.: GB 1971-5419 A 19710225

AB Cotton or viscose rayon was dyed at 20:1 bath-fabric ratio in a bath containing 0.5-1 weight % of one of 13 reactive dyes and .leq.120 g/l. Na chloride [7647-14-5] so that the dye exhaustion was .leq.96%, and the dyed material fixed with a basic salt and sprayed with water to give material dyed with colors of improved wash fastness. Thus, 100 parts cotton yarn was treated 30 min at 80.deg. in 2000 parts water containing 120 parts NaCl and 2 parts dye (I) [37615-60-4] prepared by condensation of 2,4-dichloro-6-amino-s-triazine with 6-amino-2-(4-phenylazophenylazo)-1-naphthol-2',3,4''-trisulfonic acid. The bath containing the yarn was then mixed with Na3CO3 and held an addnl. 60 min at 80.deg.. The yarn was removed from the bath and sprayed with water to give red colored yarn.

L10 ANSWER 17 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1969:69287 CAPLUS
 DOCUMENT NUMBER: 70:69287
 ORIGINAL REFERENCE NO.: 70:12997a,13000a
 TITLE: Metallized azo dyes
 INVENTOR(S): Dehnert, Johannes
 PATENT ASSIGNEE(S): Badische Anilin- & Soda-Fabrik AG
 SOURCE: Fr., 6 pp.
 CODEN: FRXXAK
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1508805		19680105	FR 1967-92215	19670124
DE 1544393			DE	
GB 1164329			GB	
			DE	19660129

PRIORITY APPLN. INFO.:
 GI For diagram(s), see printed CA Issue.
 AB Metal complexes of azo compds. of the general structures I (X or Y = Q) and II are dyes for wool; by the process of Fr. 1,318,627 and Fr. Addition 83,225, they can also be applied to cotton. Thus, 22.35 parts 2,5,3-HO(Cl)(HO3S)C6H2NH2 was diazotized and coupled with 30 parts 1,8,3,6-H2N(HO)C10H4(SO3H)2 (III), the product precipitated with 80 vols. concentrated HCl and 200 vols. saturated aqueous NaCl, filtered, the residue dissolved in 500

parts 1% NaOH, the aminoazo compound diazotized and coupled with 11 parts 3-methyl-5-pyrazolone and the pH adjusted to 6 with 200 vols. 10% NaOH give I (R = Cl, X = Q, Y = H, Z = SO₃H) (IV), a black-brown powder, soluble in hot H₂O (red brown), which dyed wool olive shades by an afterchrome procedure. A mixture of III, 750 parts H₂O, and 36 vols. 25% aqueous NH₃ was heated at 50-60° with stirring, treated with a solution of 27 parts CuSO₄.5H₂O in 150 parts H₂O and 60 vols. 25% aqueous NH₃, stirred at 50-60° for 2 hrs., and treated with 2000 vols. Me₂CO to precipitate the Cu complex of IV, a dark powder, violet in H₂O, which dyed cellulose fibers gray. The Co complex of IV, olive brown in H₂O, dyed cotton brownish gray. Similarly, metal complexes of I (R = SO₂NH₂) were prepared [X, Y, Z, metal, color in H₂O, and shade (fiber) given]: Q, H, SO₃H (V), -, red-brown, greenish gray(wool) (after chroming); Q, H, SO₃H, Cr, -, greenish gray (cotton); Q, H, SO₃H, Co, violet brown, grayish brown (cotton); H, Q, H, -, blue, blue gray (wool) (by afterchroming); H, Q, H, Cr, -, blue gray (cotton); H, Q, H, Co, violet, gray violet (cotton). The mixed Cr complex of V and 2,5,1-H₂N(HO₃S)C₁₀H₅N:NC₆H₃(OH)NO₂-2,4 (VI) was a black powder, dull green in H₂O, green gray on cotton.

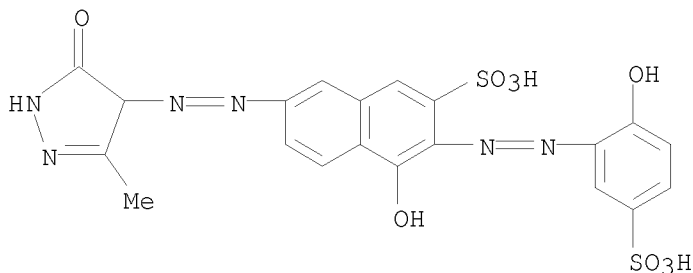
3,4,5-Q(HO)(O₂N)C₆H₂SO₃H, reduced with Na₂S, diazotized, and coupled with 2-C₁₀H₇OH gave II (R = 2,1-HOC₁₀H₇) (VII), blue in H₂O, gray on wool by afterchroming (Cr complex gray violet on cotton). The mixed Cr complex of VI and VII was blue in H₂O, blue gray on cotton. Similarly were prepared the Co complexes of II (RH = III), blue in H₂O, gray on cotton, and of II (RN:N = Q), bluish red in H₂O, bordeaux on cotton.

IT 21592-21-2DP, 2-Naphthalenesulfonic acid, 4-hydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]-7-[(3-methyl-5-oxo-2-pyrazolin-4-yl)azo]-, cobalt complexes 21592-21-2P

RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)

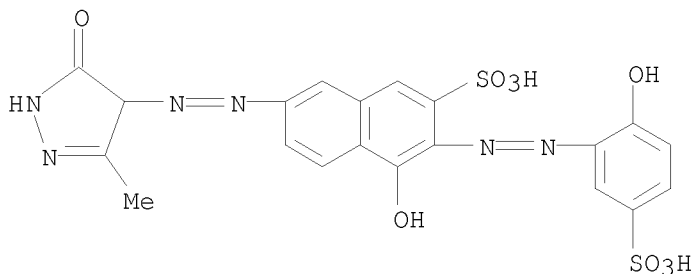
RN 21592-21-2 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-[2-(4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-4-yl)diazenyl]-4-hydroxy-3-[2-(2-hydroxy-5-sulfophenyl)diazenyl]- (CA INDEX NAME)



RN 21592-21-2 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-[2-(4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-4-yl)diazenyl]-4-hydroxy-3-[2-(2-hydroxy-5-sulfophenyl)diazenyl]- (CA INDEX NAME)



ACCESSION NUMBER: 1964:462105 CAPLUS
 DOCUMENT NUMBER: 61:62105
 ORIGINAL REFERENCE NO.: 61:10810c-h,10811a-b
 TITLE: Metalized dis- and trisazo reactive dyes
 INVENTOR(S): Andrew, Herbert F.; Baker, Ronald
 PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd.
 SOURCE: 20 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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GB 951471		19640304	GB 1961-19080	19610526
US 3207746		19650921	US 1962-194173	19620511
PRIORITY APPLN. INFO.:			GB	19610526

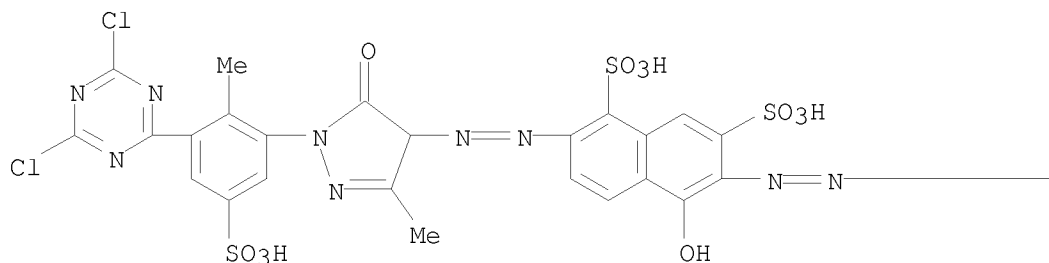
GI For diagram(s), see printed CA Issue.

AB The title compds. contain 0.5, 1, or 2 metal atoms per mol. and are less substantive than some polyazo direct dyes thereby reducing the staining of adjacent undyed or different colored areas during washing of cellulosic textiles dyed with the compds. Cu or Co complexes were prepared from compds. of the general formula I, where A is H or NaO₃S, and X is either (1) a triazinylamino group containing two Cl substituents or one Cl and one sulfonated anilino group, or (2) a 1-phenyl-5-pyrazolonylazo group bearing a triazinylamino group substituted as under 1. Thus, 2,5-(HO₃S)₂C₆H₃NH₂ (II) was diazotized and coupled in alkaline medium with 1,2,5,7-Cl(H₂N)(HO)C₁₀H₄SO₃H (III) and the product diazotized and coupled in alkaline medium with 2,5,1,7-H₂N(HO)C₁₀H₄(SO₃H)₂ (IV), yielding a disazo compound, which was copperized by boiling for .apprx.1 hr. in an aqueous solution containing 2% NaOH, 2% glycerol, and 1.5 moles CuSO₄, the Cl group being replaced by an OH group under these conditions. A solution containing the product 10.2 and H₂O 200 was added gradually to a suspension of cyanuric chloride (V) 2.22, H₂O 27, and ice 50 parts at 0-5° and pH 6.5-7.0, the pH being maintained by addition of Na₂CO₃ solution 3-NaO₃SC₆H₃NEt₂ (VI) 4.7 and NaHSO₄ 0.3 were added, the solution poured into Me₂CO, precipitating I (A = NaO₃S, X = dichlorotriazinylamino), which was filtered, mixed with VI 1.88 and NaHSO₄ 0.12 part and dried. It dyed cotton light- and wetfast green shades. Similarly other I were prepared (reactants, metal, and shade given): (II → III) → IV, V, 3-NaO₃SC₆H₄NH₂ (VII), Co, blue (the Cu complex of (II → III) → IV was prepared, demetalized by stirring 18 hrs. at 20-5° in concentrated HCl, and treated with neutral aqueous CoCl₂ at 95° for 18 hrs.); [(II → III) → IV] → 1-(2-methyl-3-amino-5-sulfo-phenyl)-3-methyl-5-pyrazolone (VIII), V, 3,5-(HO₃S)₂C₆H₈NH₂ (IX), Cu, yellowish green; [(II → III) → 2,5,7-H₂N(HO)C₁₀H₅SO₃H (X)] → VIII, V, IX, Cu, green. Either 3,4-HO₃S(H₂N)C₆H₄NHAc or the 4,3-isomer was coupled with III and the products coupled with 3,6,2- or 6,8,2-(HO₃S)₂C₁₀H₅OH, the AcNH group being deacetylated and the Cl group being replaced by OH during subsequent alkaline metalization. The Cu or Ni complexes of XI, where Y or Z is NaO₃S, the other being H, were either (1) condensed with V, further condensed with VII, and treated with pyridine (XII) or mercaptobenzothiazole (XIII) or (2) coupled with a pyrazolone compound containing a 1-(3-aminophenyl) group, condensed with V, and further condensed with IX. Dyes prepared from the XI type intermediate were (reactants, metal, and shade given): [2,5-HO₃S(AcNH)C₆H₃NH₂ (XIV) → III] → 6,8,2-(HO₃S)₂C₁₀H₅OH (XV), V, Ni, blue (prepared from demetalized Cu complex); (XIV → III) → XV, V, VII, treated with XII, Cu, green; [2,4-HO₃S(AcNH)C₆H₃NH₂ (XVI) → III] → 3,6,2-(HO₃S)₂C₁₀H₅OH (XVII), V, VII, treated with XIII, Cu, bluish green; [(XIV → III) → XV] →

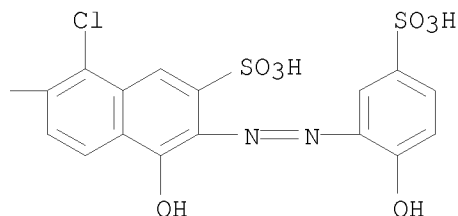
VIII, V, Cu, yellowish green; [(XIV → III) → XV] → 1-(3-aminophenyl)-5-pyrazolone-3-carboxylic acid, V, IX, Cu, yellowish green. Other dis- and trisazo reactive dyes containing one or two chlorotriazinyl groups were prepared (reactants, metal, and shade given): [[2-HO3SC6H4NH2 (XVIII) → III] → IV] → VIII, V, 2,4-HO2C(HO3S)C6H3NH2, Cu, yellowish green; [(XVIII → III) → IV] → VIII, V, VII, Cu, green; [[2,5-HO(HO3S)C6H3NH2 → III] → IV] → 1-(2-methyl-3-(4,6-dichlorotriazin-2-ylamino)-5-sulfophenyl)-3-methyl-5-pyrazolone, Cu (2 atoms/mol.), green; (XIV → III) → 8,5,7,1-H2N(HO3S)2C10H4OH, V, Cr (prepared from demetalized Cu complex), gray green; [(XIV → III) → IV, V] → 1-(3-sulfophenyl)-5-pyrazolone-3-carboxylic acid, Cu, green; (XIV → III) → IV, V, 3-HO3SC6H4NHMe, V, Cu, green (bluish green before the last condensation with V):

- IT 859452-14-5, 1,7-Naphthalenedisulfonic acid, 6-[[[1-chloro-5-hydroxy-6-[(2-hydroxy-5-sulfophenyl)azo]-7-sulfo-2-naphthyl]azo]-2-[[1-[3-(4,6-dichloro-s-triazin-2-yl)-5-sulfo-o-tolyl]-3-methyl-5-oxo-2-pyrazolin-4-yl]azo]-5-hydroxy- (reaction product with Na N,N-diethylmetanilate, Cr complex)
- RN 859452-14-5 CAPLUS
- CN 1,7-Naphthalenedisulfonic acid, 6-[2-[1-chloro-5-hydroxy-6-[2-(2-hydroxy-5-sulfophenyl)diazenyl]-7-sulfo-2-naphthalenyl]diazenyl]-2-[2-[1-[3-(4,6-dichloro-1,3,5-triazin-2-yl)-2-methyl-5-sulfophenyl]-4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-4-yl]diazenyl]-5-hydroxy- (CA INDEX NAME)

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PAGE 1-B



L10 ANSWER 19 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1963:53864 CAPLUS
 DOCUMENT NUMBER: 58:53864
 ORIGINAL REFERENCE NO.: 58:9261f-h,9262a-b
 TITLE: Polyazo dyes derived from barbituric acid
 PATENT ASSIGNEE(S): CIBA Ltd.
 SOURCE: 13 pp.
 DOCUMENT TYPE: Patent

LANGUAGE: Unavailable
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 902228		19620801	GB 1959-24392	19590715
PRIORITY APPLN. INFO.:			CH	19580806

GI For diagram(s), see printed CA Issue.

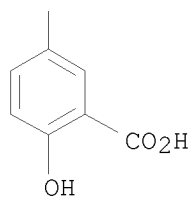
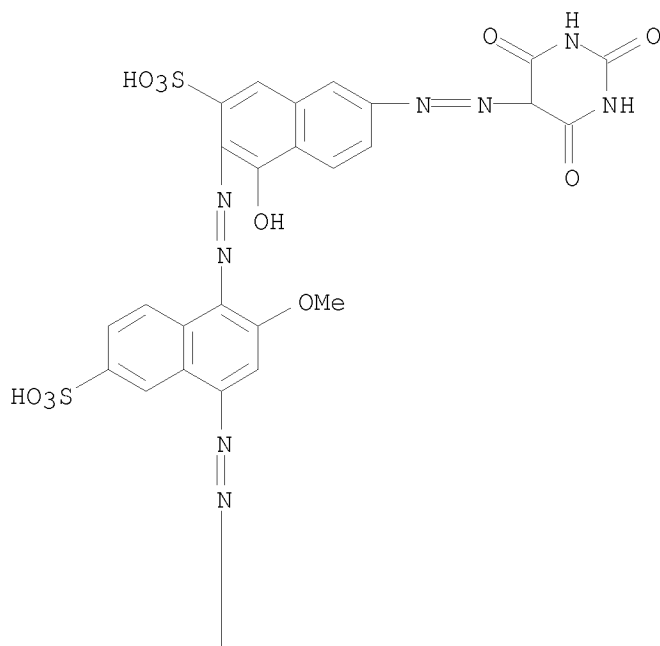
AB Compds. of the general formula I are diazotized, coupled with barbituric acid (II) and copperized to give green-to-gray dyes for cellulose. Thus, I (R = m-tolyl) → II was heated with Cu-(OAc)₂ in dilute AcOH for several hrs. to form the Cu complex, a green-black powder, green in water and on cotton or viscose. Similarly, other I → II were prepared and copperized (RNH₂, appearance of dye, and shade on cotton given):
 5,2-H₂N(HO)C₆H₃-CO₂H, green-black powder, green; III, --, green, IV, dark green powder, olive green; o-HOC₆H₄SO₃H → (4-H₂NC₅H₄)₂, black powder, olive green; V, dark green powder, green. Similarly,
 4-HO₃SC₆H₄NH₂ → 2-HO₃SC₆H₄NH₂ → 2,5-MeO(Me)C₆H₃-NH₂ → 6,1,3-H₂N(HO)C₁₀H₅SO₃H → II was copperized to a blackish powder, blackish olive gray on cotton. The Cu complex of
 1,3,7-HO(HO₃S)C₁₀H₅(NHC₆H₄SO₃H-3) ← [4,3-H₂N-(MeO)C₆H₃]₂ → 7,1,3-H₂N(HO)C₁₀H₅SO₃H → II was a blackish powder, gray on cotton.

IT 96590-14-6P, Salicylic acid,
 5-[[4-[[6-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)azo]-1-hydroxy-3-sulfo-2-naphthyl]azo]-3-methoxy-7-sulfo-1-naphthyl]azo]- 106068-97-7P,
 2-Naphthalenesulfonic acid, 7-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)azo]-4-hydroxy-8'-[[4'-[(4-hydroxy-3-sulfophenyl)azo]-4-biphenyl]azo]-6'-methoxy-3,5'-azodi- 106278-30-2P, 2-Naphthalenesulfonic acid,
 7-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)azo]-4-hydroxy-6'-methoxy-8'-(m-tolylazo)-3,5'-azodi- 106437-98-3P,
 2H-Naphtho[1,2-d]triazole-5,9-disulfonic acid,
 2-[4-[4-[[4-[[6-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)azo]-1-hydroxy-3-sulfo-2-naphthyl]azo]-3-methoxy-7-sulfo-1-naphthyl]azo]-2-sulfostyryl]-3-sulfophenyl]- 106504-77-2P, Benzoic acid,
 2-[[1-[(2,5-disulfophenyl)carbonyl]acetonyl]azo]-5-[p-[[4-[[6-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)azo]-1-hydroxy-3-sulfo-2-naphthyl]azo]-3-methoxy-7-sulfo-1-naphthyl]azo]benzamido]-, copper complex
 106631-78-1P, Benzoic acid,
 2-[[1-[4-[4-[[4-[[6-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)azo]-1-hydroxy-3-sulfo-2-naphthyl]azo]-3-methoxy-7-sulfo-1-naphthyl]azo]-2-sulfostyryl]-3-sulfophenyl]-3-methyl-5-oxo-2-pyrazolin-4-yl]azo]-, 5-sulfo-
 107744-18-3P, 2-Naphthalenesulfonic acid,
 7-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)azo]-4-hydroxy-3-[[6-methoxy-4-[[2-sulfo-4-[(p-sulfophenyl)azo]phenyl]azo]-m-tolyl]azo]-
 RL: PREP (Preparation)

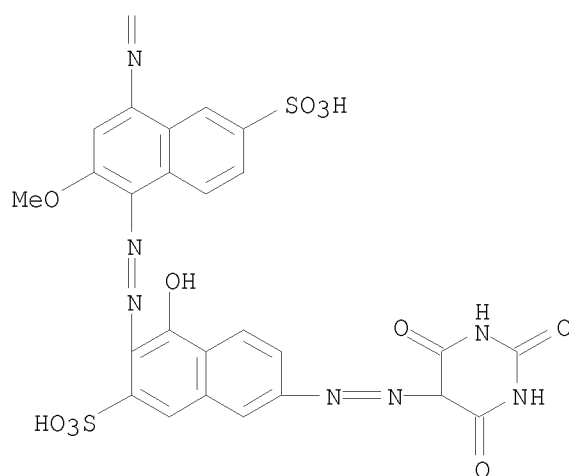
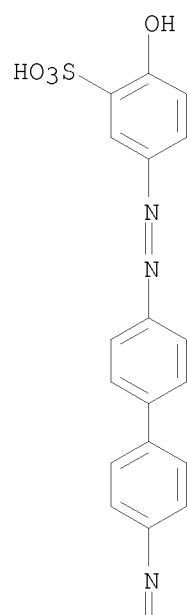
(preparation of)

RN 96590-14-6 CAPLUS

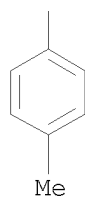
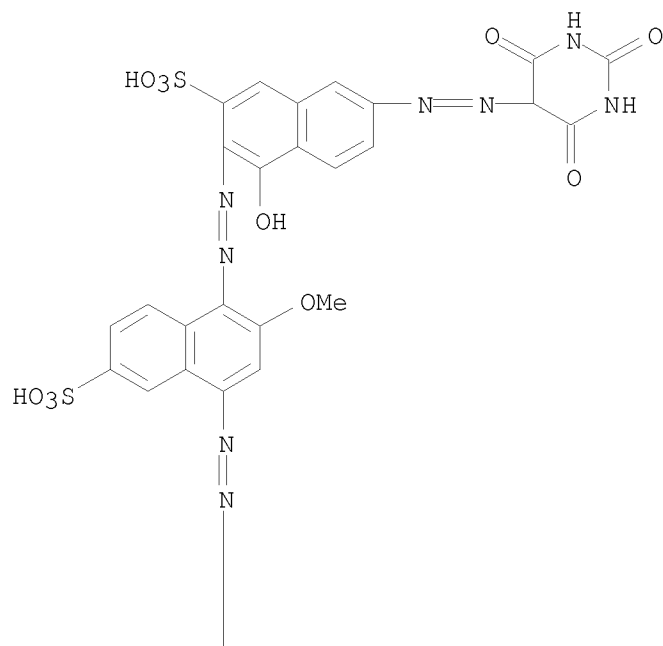
CN Benzoic acid, 5-[2-[4-[2-[6-[2-(hexahydro-2,4,6-trioxo-5-pyrimidinyl)diazonyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazonyl]-3-methoxy-7-sulfo-1-naphthalenyl]diazonyl]-2-hydroxy- (CA INDEX NAME)



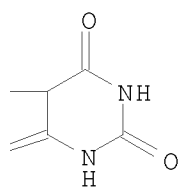
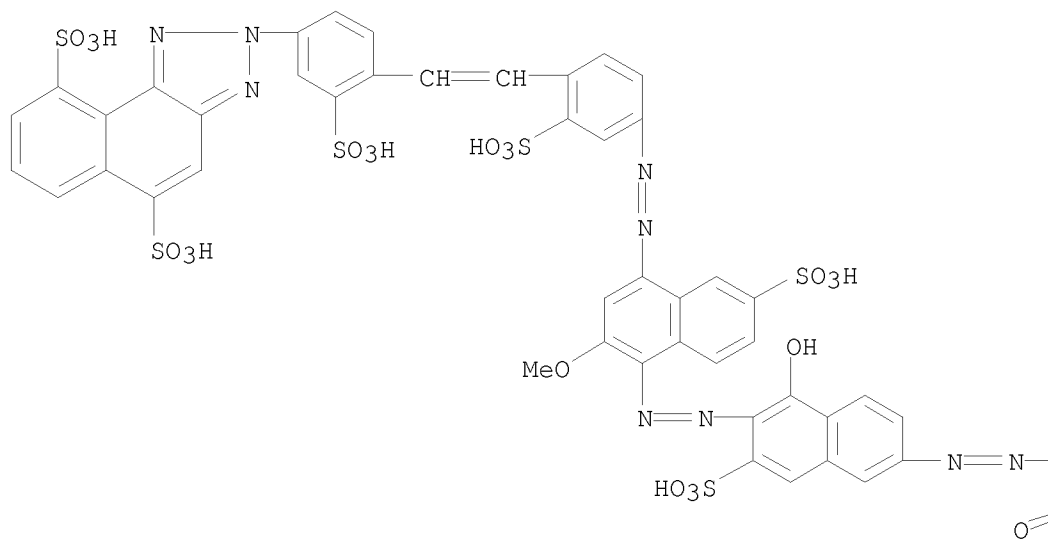
RN 106068-97-7 CAPLUS
 CN 2-Naphthalenesulfonic acid, 7-[2-(hexahydro-2,4,6-trioxo-5-pyrimidinyl)diazenyl]-4-hydroxy-3-[2-[4-[2-[4'-[2-(4-hydroxy-3-sulfophenyl)diazenyl][1,1'-biphenyl]-4-yl]diazenyl]-2-methoxy-6-sulfo-1-naphthalenyl]diazenyl]- (CA INDEX NAME)



RN 106278-30-2 CAPLUS
 CN 2-Naphthalenesulfonic acid, 7-[2-(hexahydro-2,4,6-trioxo-5-pyrimidinyl)diazenyl]-4-hydroxy-3-[2-[2-methoxy-4-[2-(4-methylphenyl)diazenyl]-6-sulfo-1-naphthalenyl]diazenyl]- (CA INDEX NAME)



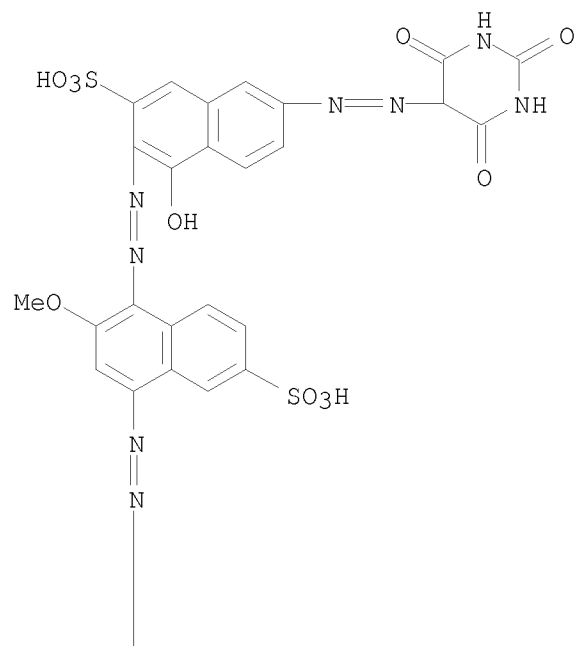
RN 106437-98-3 CAPLUS
 CN 2H-Naphtho[1,2-d]triazole-5,9-disulfonic acid,
 2-[4-[4-[4-[4-[6-(hexahydro-2,4,6-trioxo-5-pyrimidinyl)azo]-1-hydroxy-3-
 sulfo-2-naphthyl]azo]-3-methoxy-7-sulfo-1-naphthyl]azo]-2-sulfostyryl]-3-
 sulfophenyl]- (7CI) (CA INDEX NAME)



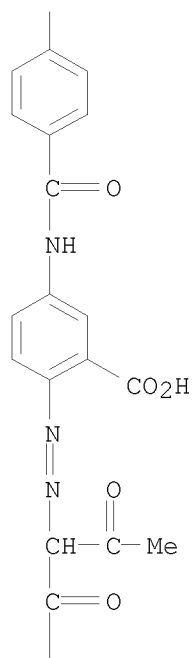
RN 106504-77-2 CAPLUS

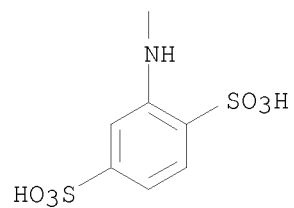
CN Benzoic acid, 2-[2-[1-[[2,5-disulfo-phenyl]amino]carbonyl]-2-oxopropyl]diaz-enyl]-5-[[4-[2-[4-[2-[6-[2-(hexahydro-2,4,6-trioxo-5-pyrimidinyl)diaz-enyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diaz-enyl]-3-methoxy-7-sulfo-1-naphthalenyl]diaz-enyl]benzoyl]amino]- (CA INDEX NAME)

PAGE 1-A



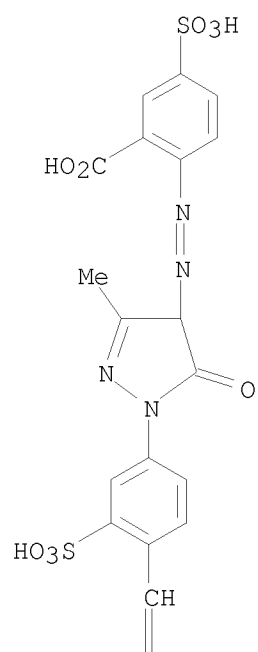
PAGE 2-A

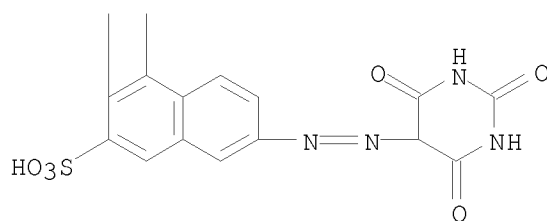
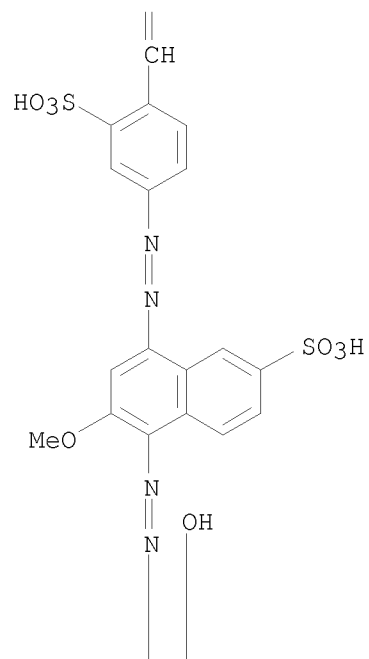




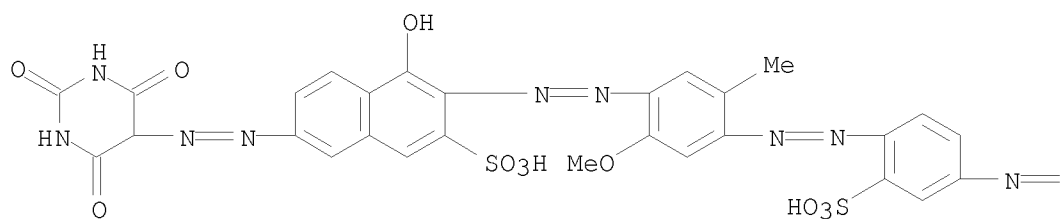
RN 106631-78-1 CAPLUS

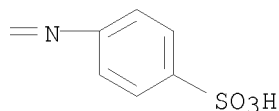
CN Benzoic acid, 2-[2-[1-[4-[2-[4-[2-[4-[2-[6-[2-(hexahydro-2,4,6-trioxo-5-pyrimidinyl)diazenyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]-3-methoxy-7-sulfo-1-naphthalenyl]diazenyl]-2-sulfo-phenyl]ethenyl]-3-sulfo-phenyl]-4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-4-yl]diazenyl]-5-sulfo- (CA INDEX NAME)





RN	107744-18-3	CAPLUS
CN	2-Naphthalenesulfonic acid, 7-[2-(hexahydro-2,4,6-trioxo-5-pyrimidinyl)diazenyl]-4-hydroxy-3-[2-[2-methoxy-5-methyl-4-[2-[2-sulfo-4-[2-(4-sulfophenyl)diazenyl]phenyl]diazenyl]phenyl]diazenyl]- (CA INDEX NAME)	





L10 ANSWER 20 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1963:27674 CAPLUS

DOCUMENT NUMBER: 58:27674

ORIGINAL REFERENCE NO.: 58:4670d-h

TITLE: Polyazo dyes

INVENTOR(S): Hanhart, Walter

PATENT ASSIGNEE(S): CIBA Ltd.

SOURCE: 12 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1135596		19620830	DE 1959-C19561	19590805
CH 369844			CH	
GB 902228			GB	
US 3078266		19630219	US 1959-828037	19590720
PRIORITY APPLN. INFO.:			CH	19580806

GI For diagram(s), see printed CA Issue.

AB Dyes of the general structure I, prepared by coupling the appropriate amino azo compound with barbituric acid (II), gave fast green to olive shades on cellulose when copperized. Thus, the following I were prepared (X and shade on cellulose given): m-MeC₆H₄, green; 3,4-HO₂C(HO)C₆H₃, green; III, green; IV, olive green; V, olive green; 4-[4-[4,3-HO(HO₃S)C₆H₄N:N)C₆H₄]C₆H₄, olive green. Similarly, copperized N-(m-sulfo-phenyl)-γ acid ← dianisidine → γ acid → II was a blackish powder, dull blue in H₂O, gray on cotton, and copperized 4-HO₃SC₆H₄NH₂ → 2-HO₃SC₆H₄NH₂ → 2,5-Me(MeO)C₆H₃NH₂ → J acid → II was a blackish powder, green in H₂O, blackish olive gray on cotton.

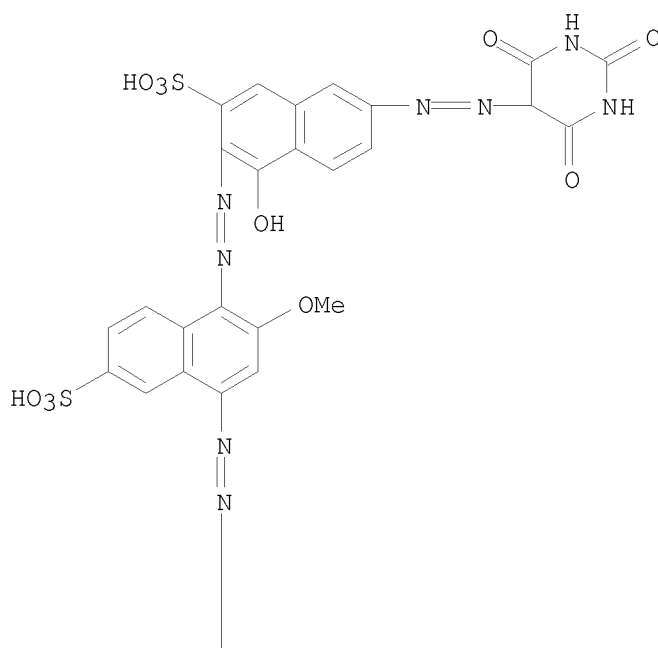
IT 96590-14-6P, Salicylic acid,
 5-[[4-[[6-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)azo]-1-hydroxy-3-sulfo-2-naphthyl]azo]-3-methoxy-7-sulfo-1-naphthyl]azo]- 106068-97-7P,
 2-Naphthalenesulfonic acid, 7-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)azo]-4-hydroxy-8'-[[4'-[(4-hydroxy-3-sulfo-phenyl)azo]-4-biphenyl]azo]-6'-methoxy-3,5'-azodi- 106278-30-2P, 2-Naphthalenesulfonic acid,
 7-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)azo]-4-hydroxy-6'-methoxy-8'-(m-tolylazo)-3,5'-azodi- 106437-98-3P,
 2H-Naphtho[1,2-d]triazole-5,9-disulfonic acid,
 2-[4-[4-[[4-[[6-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)azo]-1-hydroxy-3-sulfo-2-naphthyl]azo]-3-methoxy-7-sulfo-1-naphthyl]azo]-2-sulfo-1-naphthyl]azo]-3-sulfo-1-naphthyl]- 106504-77-2P, Benzoic acid,
 2-[[1-[(2,5-disulfo-phenyl)carbamoyl]acetyl]azo]-5-[p-[[4-[[6-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)azo]-1-hydroxy-3-sulfo-2-naphthyl]azo]-3-methoxy-7-sulfo-1-naphthyl]azo]benzamido]- 106631-78-1P, Benzoic acid, 2-[[1-[4-[4-[[4-[[6-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)azo]-1-hydroxy-3-sulfo-2-naphthyl]azo]-3-methoxy-7-sulfo-1-naphthyl]azo]-2-sulfo-1-naphthyl]azo]-3-methyl-5-oxo-2-pyrazolin-4-yl]azo]-,

5-sulfo- 107744-18-3P, 2-Naphthalenesulfonic acid,
 7-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)azo]-4-hydroxy-3-[[6-methoxy-4-
 [[2-sulfo-4-(p-sulfophenyl)azo]phenyl]azo]-m-tolyl]azo]-
 RL: PREP (Preparation)
 (preparation of)

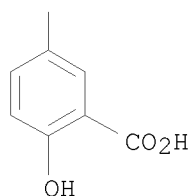
RN 96590-14-6 CAPLUS

CN Benzoic acid, 5-[2-[4-[2-[6-[2-(hexahydro-2,4,6-trioxo-5-
 pyrimidinyl)diazenyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]-3-methoxy-
 7-sulfo-1-naphthalenyl]diazenyl]-2-hydroxy- (CA INDEX NAME)

PAGE 1-A

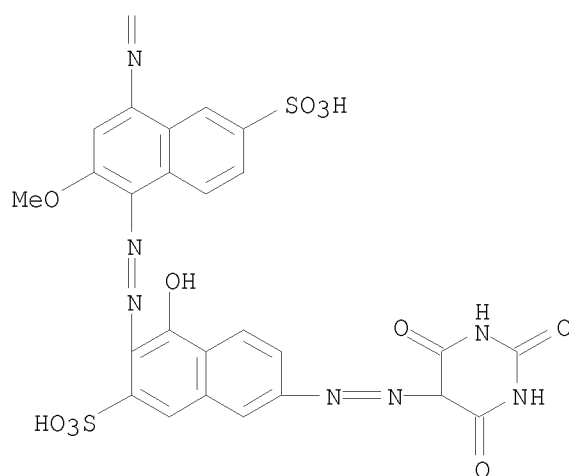
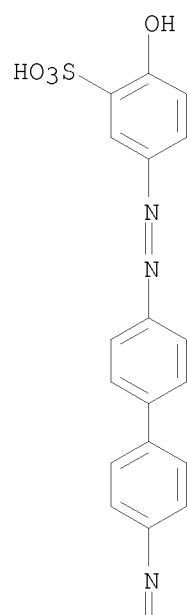


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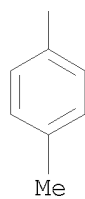
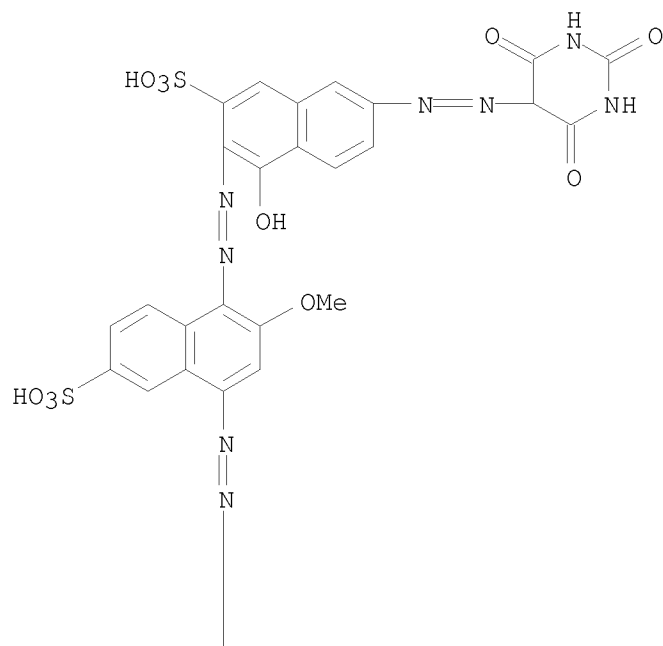


RN 106068-97-7 CAPLUS

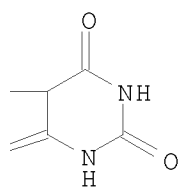
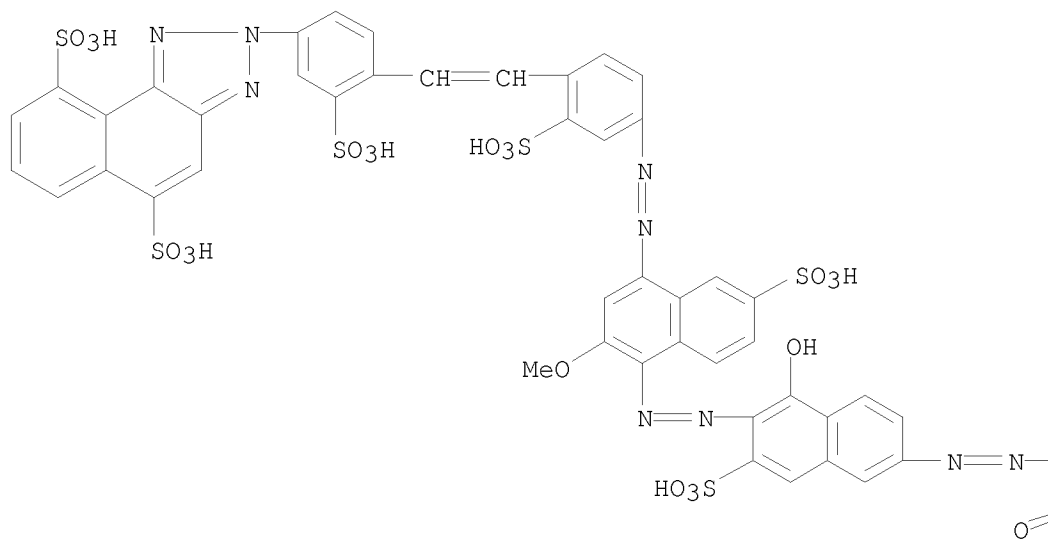
CN 2-Naphthalenesulfonic acid, 7-[2-(hexahydro-2,4,6-trioxo-5-
 pyrimidinyl)diazenyl]-4-hydroxy-3-[2-[4-[2-[4'-[2-(4-hydroxy-3-
 sulfophenyl)diazenyl][1,1'-biphenyl]-4-yl]diazenyl]-2-methoxy-6-sulfo-1-
 naphthalenyl]diazenyl]- (CA INDEX NAME)



RN 106278-30-2 CAPLUS
 CN 2-Naphthalenesulfonic acid, 7-[2-(hexahydro-2,4,6-trioxo-5-pyrimidinyl)diazenyl]-4-hydroxy-3-[2-[2-methoxy-4-[2-(4-methylphenyl)diazenyl]-6-sulfo-1-naphthalenyl]diazenyl]- (CA INDEX NAME)



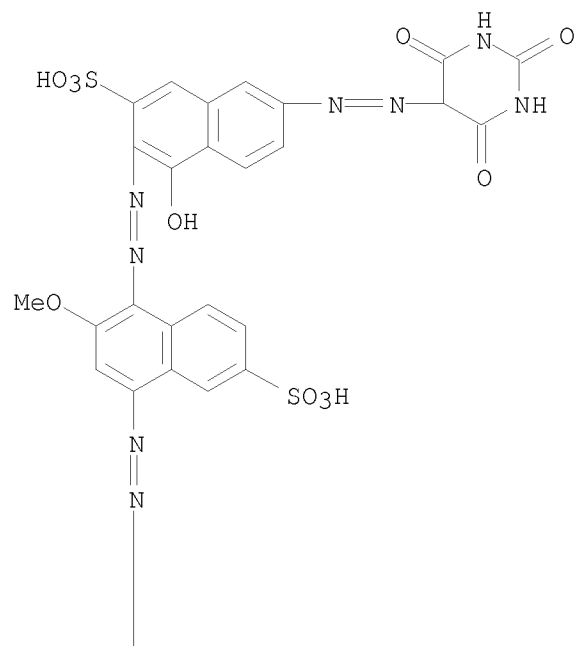
RN	106437-98-3	CAPLUS
CN	2H-Naphtho[1,2-d]triazole-5,9-disulfonic acid, 2-[4-[4-[4-[6-[(hexahydro-2,4,6-trioxo-5-pyrimidinyl)azo]-1-hydroxy-3-sulfo-2-naphthyl]azo]-3-methoxy-7-sulfo-1-naphthyl]azo]-2-sulfostyryl]-3-sulfophenyl]- (7CI) (CA INDEX NAME)	



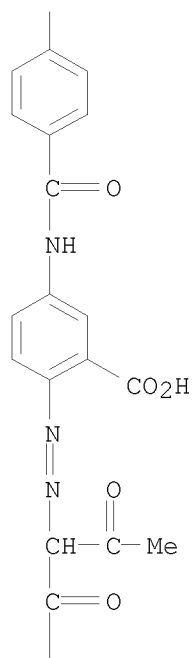
RN 106504-77-2 CAPLUS

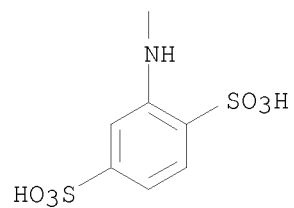
CN Benzoic acid, 2-[2-[1-[[2,5-disulfo-phenyl]amino]carbonyl]-2-oxopropyl]diaz-enyl]-5-[[4-[2-[4-[2-[6-[2-(hexahydro-2,4,6-trioxo-5-pyrimidinyl)diaz-enyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diaz-enyl]-3-methoxy-7-sulfo-1-naphthalenyl]diaz-enyl]benzoyl]amino]- (CA INDEX NAME)

PAGE 1-A



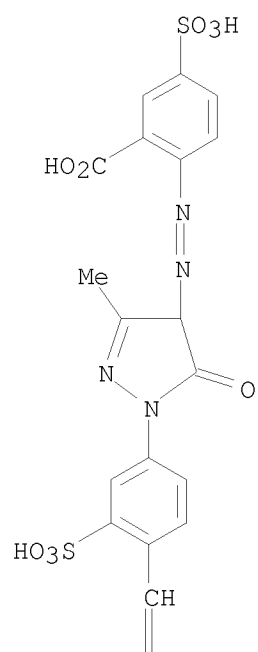
PAGE 2-A

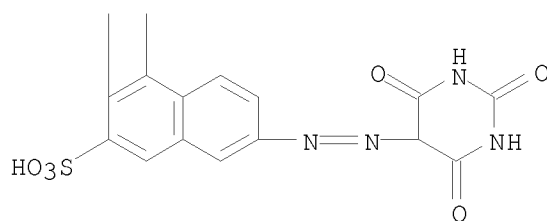
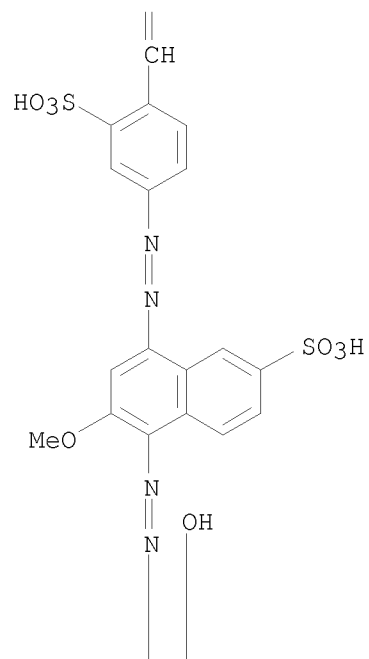




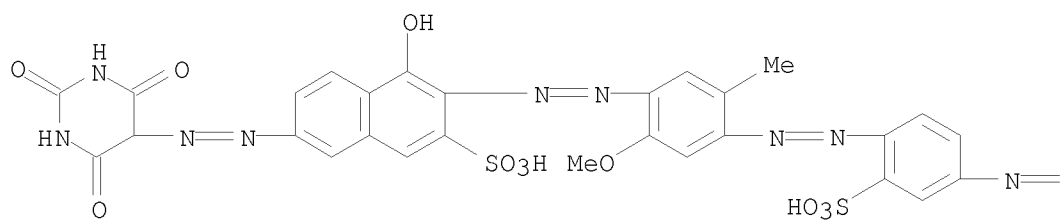
RN 106631-78-1 CAPLUS

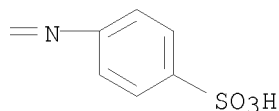
CN Benzoic acid, 2-[2-[1-[4-[2-[4-[2-[4-[2-[6-[2-(hexahydro-2,4,6-trioxo-5-pyrimidinyl)diazenyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]-3-methoxy-7-sulfo-1-naphthalenyl]diazenyl]-2-sulfo-phenyl]ethenyl]-3-sulfo-phenyl]-4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-4-yl]diazenyl]-5-sulfo- (CA INDEX NAME)





RN	107744-18-3	CAPLUS
CN	2-Naphthalenesulfonic acid, 7-[2-(hexahydro-2,4,6-trioxo-5-pyrimidinyl)diazenyl]-4-hydroxy-3-[2-[2-methoxy-5-methyl-4-[2-[2-sulfo-4-[2-(4-sulphophenyl)diazenyl]phenyl]diazenyl]phenyl]diazenyl]- (CA INDEX NAME)	





L10 ANSWER 21 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1962:46607 CAPLUS
 DOCUMENT NUMBER: 56:46607
 ORIGINAL REFERENCE NO.: 56:8885i,8886a-d
 TITLE: Mono- and disazo triazine dyes
 INVENTOR(S): Fasciati, Alfred; Gunst, Raymond; Riat, Henri; Seitz, Karl
 PATENT ASSIGNEE(S): CIBA Ltd.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2945021		19600712	US 1957-682582	19570909
CH 360744			CH	
GB 876923			GB	
PRIORITY APPLN. INFO.:			CH	19560914
			US	19570909

AB Reactive dyes for cotton containing at least two SO₃H groups have the general formula XNHYN:NA, where X is a chloro-s-triazinyl group, Y is the radical of a diazo component and may contain an azo link, and A is the radical of a coupling component. Thus, 31.65 parts of the condensation product (I) of molar quantities of cyanuric chloride (II), 2,4-(H₂N)2C₆H₃SO₃H (III) and NH₃ is diazotized and coupled with 42.3 parts 1,3,6,8-BzNH(HO₃S)2C₁₀H₄OH. The product is precipitated with KCl, filtered, washed with aqueous KCl, and dried at 70° in vacuo; it dyes cotton fast bluish red tints from an alkaline bath. Similar dyes (color given) are prepared

from 8.76 parts 1,2,6,8-[4,2-(H₂N)(HO₃S)C₆H₃N:N](H₂N)(HO₃S)(HO)C₁₀H₄ condensed with 3.7 parts II and 0.8 parts NH₃ (bluish red); 47.25 parts of the condensation product of II with 2-HO₃SC₆H₄NH₂ and III diazotized and coupled with 23.9 parts 2,6,8-H₂N(HO₃S)C₁₀H₅OH (red); 31.6 parts I diazotized and coupled with 22.3 parts 1,7-H₂NC₁₀H₆SO₃H (IV), and the product diazotized and coupled with 28.1 parts 2,6,8-AcNH(HO₃S)(HO)C₁₀H₅ (reddish blue); 31.6 parts I diazotized and coupled with 54.8 parts of the monoazo compound from 2,4-HO₃S(O₂N)C₆H₄NH₂ diazotized and coupled in acid with 1,3,6,8-H₂N(HO₃S)2(HO)C₁₀H₄ (V) (greenish blue); 33.6 parts I diazotized and coupled with 23.9 parts 2,5,7-H₂N(HO)(HO₃S)C₁₀H₅ and the product diazotized and coupled in base with 12.8 parts barbituric acid (brown); 31.6 parts I diazotized and coupled with 22.3 parts IV and the product diazotized and coupled with 22.3 parts IV to give a dye (VI) (bluish violet); 78.5 parts VI diazotized and coupled to 25 parts 1,4-HO(HO₃S)C₁₀H₆ (dark blue); 33.6 parts of the condensation product of II with III diazotized and coupled with 46.7 parts of the condensation product of II and V, then the product treated with 40 parts aqueous NH₃ (17%) (red); 62.9 parts of the dye prepared by coupling diazotized 4-nitro-4'-aminostilbene-2,2'-disulfonic acid with PhOH and esterifying

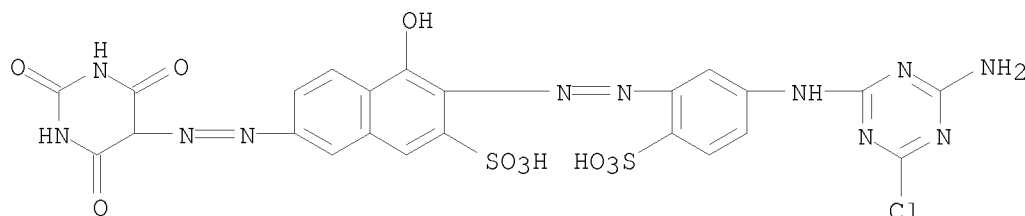
the product with 4-CH₃C₆H₄SO₂Cl, then reducing the nitro group with NaSH, condensed with 68.5 parts II and 4 parts NH₃ (yellow).

IT 104781-25-1

(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 104781-25-1 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[2-[5-[(4-amino-6-chloro-1,3,5-triazin-2-yl)amino]-2-sulfophenyl]diazenyl]-7-[2-(hexahydro-2,4,6-trioxo-5-pyrimidinyl)diazenyl]-4-hydroxy- (CA INDEX NAME)



L10 ANSWER 22 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1962:46606 CAPLUS

DOCUMENT NUMBER: 56:46606

ORIGINAL REFERENCE NO.: 56:8885e-i

TITLE: Azulene styrene dyes

INVENTOR(S): Poppe, Ernst Joachim; Treibs, Wilhelm

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 21338			DD	19581029
PRIORITY APPLN. INFO.:			DD	19581029

GI For diagram(s), see printed CA Issue.

AB Dimethine dyes of the general formula I are prepared where X is S, Se, or CMe₂, and R is an alkyl group. Azulene (II) (0.64 g.) and 1.02 g.

N-ethylbenzothiazoline-2-methylene- ω -aldehyde (III) in 30 cc.

tetrahydrofuran treated at room temperature with 0.77 g. POCl₃, diluted after some

time with iced H₂O, and treated with 40 cc. 20% aqueous NaClO₄ gave 1.5 g. I (X = S, R = Et) (IV), m. 259° (decomposition) (MeOH). 1-AcNH derivative (V) (0.92 g.) of II and 1.02 g. III in 20 cc. dioxane treated at room temperature with 0.77 g. POCl₃ yielded 1.40 g. 1-acetamidoazulene analog (VI) of IV, m. 284° (decomposition). II (0.64 g.) and 110 g.

1,3,3,5-tetramethylindolenine-2-methylene- ω -aldehyde (VII) in 20 cc.

tetrahydrofuran with 0.77 g. POCl₃, gave 1.52 g.

1,3,3,5-tetramethylindolenine analog (VIII) of IV, m. 240°

(decomposition). 3-Ethylbenzoselenazoline-2-methylene- ω -aldehyde (1.26

g.) in 20 cc. tetrahydrofuran treated successively with 0.64 g. I and 0.77

g. POCl₃ yielded 1.33 g. benzoselenazoline analog of IV, m. 276°

(decomposition). V (0.46 g.) and 0.54 g. VII in 20 cc. tetrahydrofuran treated

with 0.38 g. POCl₃ gave 1.05 g. 1-acetamidoazulene analog of VIII, m.

257°. V (0.46 g.), 0.56 g. N-ethyl-5,6-dimethylbenzothiazoline-2-

methylene- ω -aldehyde, 20 cc. tetrahydrofuran, and 0.38 g. POCl₃

yielded in the usual manner 1.17 g. 5,6-dimethylbenzothiazoline analog of

IV, m. 258° (decomposition).

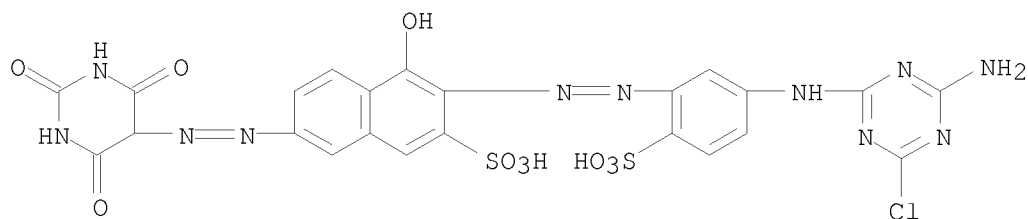
IT 104781-25-1

(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 104781-25-1 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[2-[5-[(4-amino-6-chloro-1,3,5-triazin-2-

yl)amino]-2-sulfophenyl]diazenyl]-7-[2-(hexahydro-2,4,6-trioxo-5-pyrimidinyl)diazenyl]-4-hydroxy- (CA INDEX NAME)



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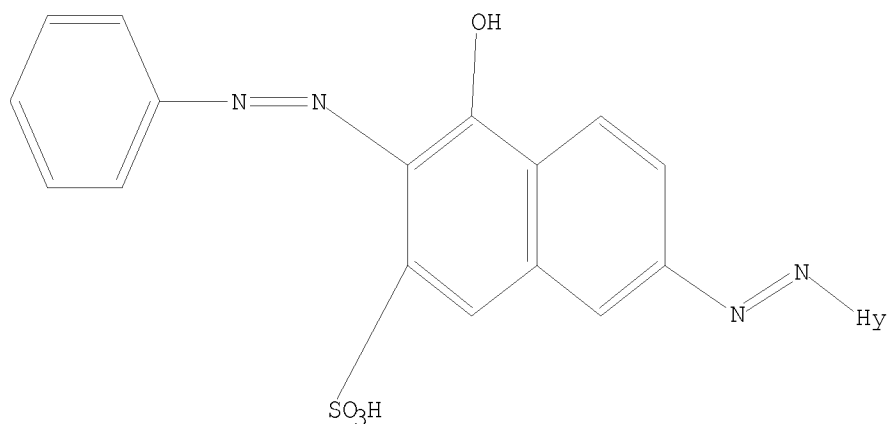
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100.0% PROCESSED 1448 ITERATIONS

6 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

 BATCH **COMPLETE**

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100.0% PROCESSED 29577 ITERATIONS

107 ANSWERS

SEARCH TIME: 00.00.01

L14 107 SEA SSS FUL L11

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FILE COVERS 1907 - 13 Feb 2009 VOL 150 ISS 8
FILE LAST UPDATED: 12 Feb 2009 (20090212/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

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L15 15 L14

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FBIB ----- AN, BIB, plus Patent FAM
IND ----- Indexing data
IPC ----- International Patent Classifications
MAX ----- ALL, plus Patent FAM, RE
PATS ----- PI, SO
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 SIBIB ----- IBIB, no citations

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 HITIND ----- IC, ICA, ICI, NCL, CC and index field (ST and IT)
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 HITRN ----- HIT RN and its text modification
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 HITSEQ ----- HIT RN, its text modification, its CA index name, its
 structure diagram, plus NTE and SEQ fields
 FHITSTR ----- First HIT RN, its text modification, its CA index name, and
 its structure diagram
 FHITSEQ ----- First HIT RN, its text modification, its CA index name, its
 structure diagram, plus NTE and SEQ fields
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L15 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2008:1300986 CAPLUS
 DOCUMENT NUMBER: 149:515060
 TITLE: Dye-based black ink formulations and ink-jet ink sets
 INVENTOR(S): Rengaswamy, Sukanya; Rehman, Zia Ur; Austin, Mary E.
 PATENT ASSIGNEE(S): Hewlett-Packard Development Company, L.P., USA
 SOURCE: PCT Int. Appl., 26pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2008131393	A2	20081030	WO 2008-US61184	20080422
WO 2008131393	A3	20081218		
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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,
 IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK,
 TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
 TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
 AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

US 20080257206 A1 20081023 US 2007-788903 20070423
 PRIORITY APPLN. INFO.: US 2007-788903 A 20070423
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Dye-based black inks comprise 0.5 - 5.0 weight% black azo dyes such as I (X = SO₃Q, Q = Na or Li, n = 1 - 3) or II (R₁ and R₂ = H, halogen, CN, carboxy, sulfo, sulfamoyl, N-alkylaminosulfonyl or N-phenylaminosulfonyl group, R₃ - R₈ = H, CN, hydroxy, carboxy, sulfo, sulfamoyl, N-alkylaminosulfonyl or N-phenylaminosulfonyl group, 0 <n< 1) 0.1 - 4.0% yellow dyes, 0 - 3.5% magenta dyes and 0 - 4.0% cyan dyes. Thus, a black ink with good color neutrality and water-fastness comprises 2.0 - 3.5% Exptl. Black 10, 1.5 - 2.5% Y104, 0.5 - 1.5% exptl. Magenta 1, 9% EHPD, 6.5% 2-pyrrolidinone, 2% 1,5-pentanediol, 0.2% Tergitol 15-S7, 0.2% MES acid, 0.04% Dowfax 8390, 0.1% EDTA Na₂ and 0.1% Proxel GXL.

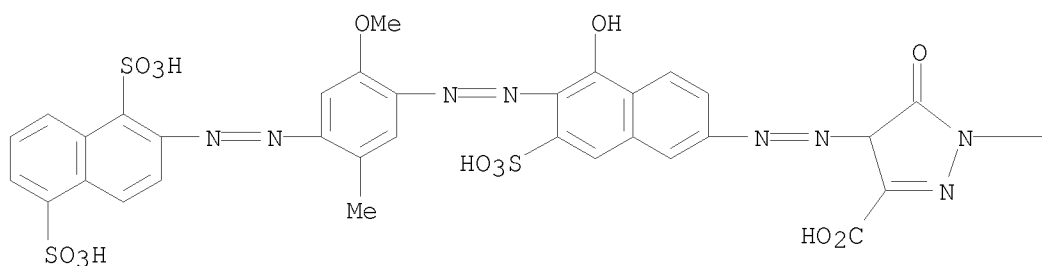
IT 1072113-42-8

RL: TEM (Technical or engineered material use); USES (Uses)
 (dye, Exptl. Black 16; azo dye-based black inks comprising black, yellow, magenta and cyan dyes)

RN 1072113-42-8 CAPLUS

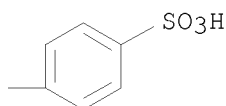
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(1,5-disulfo-2-naphthalenyl)diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-, lithium sodium salt (1:?:?) (CA INDEX NAME)

PAGE 1-A



●x Li

●x Na



L15 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2008:1300069 CAPLUS
 DOCUMENT NUMBER: 149:515056
 TITLE: Dye-based black ink formulations and ink-jet ink sets
 INVENTOR(S): Rengaswamy, Sukanya; Rehman, Zia Ur; Austin, Mary E.
 PATENT ASSIGNEE(S): Hewlett-Packard Development Company, L.P., USA
 SOURCE: PCT Int. Appl., 25pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008131396	A2	20081030	WO 2008-US61187	20080422
WO 2008131396	A3	20081218		
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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

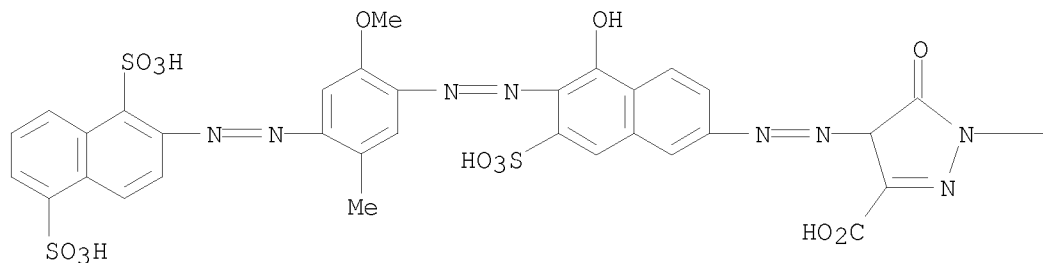
AB Dye-based black inks comprise black azo dyes such as I (X = SO₃Q, Q = Na or Li, n = 1 - 3) or II (R₁ and R₂ = H, halogen, CN, carboxy, sulfo, sulfamoyl, N-alkylaminosulfonyl or N-phenylaminosulfonyl group, R₃ - R₈ = H, CN, hydroxy, carboxy, sulfo, sulfamoyl, N-alkylaminosulfonyl or N-phenylaminosulfonyl group, 0 < n < 1), yellow dyes, magenta dyes and cyan dyes and 5 - 30% organic solvents. Thus, a black ink with good color neutrality and water-fastness comprises 4% II, 3% Exptl. Black 16, 10.9% EHPD, 6.5% 2-pyrrolidinone, 2% 1,5-pentanediol, 0.2% Tergitol 15-S7, 0.2% MES acid, 3.6% betaine, 0.04% Dowfax 8390, 0.1% EDTA Na₂ and 0.1% Proxel GXL.

IT 1072113-42-8
 RL: TEM (Technical or engineered material use); USES (Uses)
 (black dye, Exptl. Black 16; azo dye-based black inks comprising black, yellow, magenta and cyan dyes and organic solvents)

RN 1072113-42-8 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(1,5-disulfo-2-naphthalenyl)diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfo-phenyl)-, lithium sodium salt (1:?:?) (CA INDEX NAME)

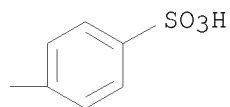
PAGE 1-A



●x Li

●x Na

PAGE 1-B



L15 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2008:1278834 CAPLUS
 DOCUMENT NUMBER: 149:495181
 TITLE: Dye-based black ink formulations and ink-jet ink sets
 INVENTOR(S): Rengaswamy, Sukanya; Rehman, Zia Ur; Austin, Mary E.
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 11pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20080257207	A1	20081023	US 2007-788904	20070423
WO 2008131396	A2	20081030	WO 2008-US61187	20080422
WO 2008131396	A3	20081218		

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,

ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH,
 PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM,
 TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,
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 TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
 TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
 AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRIORITY APPLN. INFO.:

US 2007-788904

A 20070423

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Dye-based black inks comprise black azo dyes such as I (X = SO₃Q, Q = Na or Li, n = 1 - 3) or II (R₁ and R₂ = H, halogen, CN, carboxy, sulfo, sulfamoyl, N-alkylaminosulfonyl or N-phenylaminosulfonyl group, R₃ - R₈ = H, CN, hydroxy, carboxy, sulfo, sulfamoyl, N-alkylaminosulfonyl or N-phenylaminosulfonyl group, 0 < n < 1), yellow dyes, magenta dyes and cyan dyes and 5 - 30% organic solvents. Thus, a black ink with good color neutrality and water-fastness comprises 4% II, 3% Exptl. Black 16, 10.9% EHPD, 6.5% 2-pyrrolidinone, 2% 1,5-pentanediol, 0.2% Tergitol 15-S7, 0.1% MES acid, 3.6% betaine, 0.04% Dowfax 8390, 0.1% EDTA Na₂ and 0.1% Proxel GXL.

IT 1072113-42-8

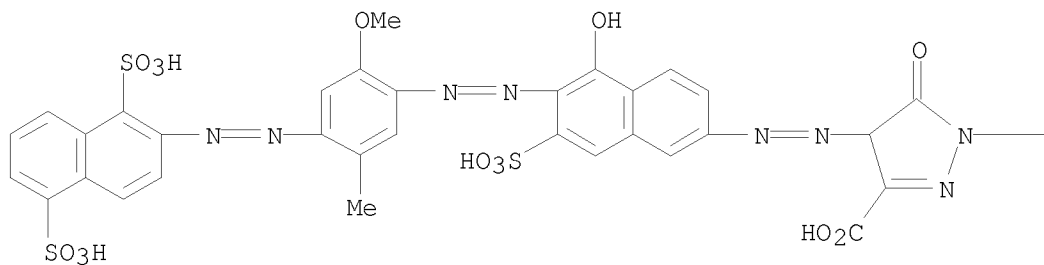
RL: TEM (Technical or engineered material use); USES (Uses)

(black dye, Exptl. Black 16; azo dye-based black inks comprising black, yellow, magenta and cyan dyes and organic solvents)

RN 1072113-42-8 CAPLUS

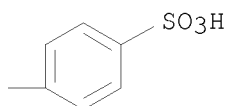
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(1,5-disulfo-2-naphthalenyl)diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-, lithium sodium salt (1:?:?) (CA INDEX NAME)

PAGE 1-A



●x Li

●x Na



L15 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2008:1278830 CAPLUS
 DOCUMENT NUMBER: 149:495180
 TITLE: Dye-based black ink formulations and ink-jet ink sets
 INVENTOR(S): Rengaswamy, Sukanya; Rehman, Zia Ur; Austin, Mary E.
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 12pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20080257206	A1	20081023	US 2007-788903	20070423
WO 2008131393	A2	20081030	WO 2008-US61184	20080422
WO 2008131393	A3	20081218		

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 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRIORITY APPLN. INFO.: US 2007-788903 A 20070423
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Dye-based black inks comprise 0.5 - 5.0 weight% black azo dyes such as, an example, (I) (X = SO₃Q, Q = Na or Li, n = 1 - 3) or (II) (R₁ and R₂ = H, halogen, CN, carboxy, sulfo, sulfamoyl, N-alkylaminosulfonyl or N-phenylaminosulfonyl group, R₃ - R₈ = H, CN, hydroxy, carboxy, sulfo, sulfamoyl, N-alkylaminosulfonyl or N-phenylaminosulfonyl group, 0 < n < 1) 0.1 - 4.0 weight% yellow dyes, 0 - 3.5 weight% magenta dyes and 0 - 4.0 weight% cyan dyes. Thus, a black ink with good color neutrality and water-fastness comprises 2.0 - 3.0 weight% Exptl. Black 10, 1.5 - 2.5 weight% Y104, 0.5 - 1.5 weight% exptl. Magenta 1, 9 weight% EHPD, 6.5 weight% 2-pyrrolidinone, 2 weight% 1,5-pentanediol, 0.2 weight% Tergitol 15-S7, 0.2 weight% MES acid, 0.04 weight% Dowfax 8390, 0.1 weight% EDTA Na₂ and 0.1 weight% Proxel GXL.

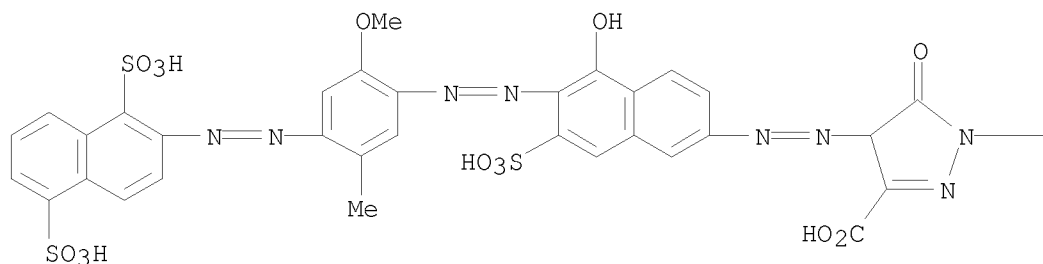
IT 1072113-42-8
 RL: TEM (Technical or engineered material use); USES (Uses)

(dye, Exptl. Black 16; azo dye-based black inks comprising black, yellow, magenta and cyan dyes)

RN 1072113-42-8 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(1,5-disulfo-2-naphthalenyl)diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfo-phenyl)-, lithium sodium salt (1:?:?) (CA INDEX NAME)

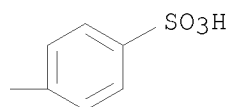
PAGE 1-A



●x Li

●x Na

PAGE 1-B



L15 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:1334067 CAPLUS

DOCUMENT NUMBER: 147:543238

TITLE: Trisazo compounds and ink jet printing ink compositions containing them

INVENTOR(S): Bradbury, Roy; Mistry, Prahalad Manibhai

PATENT ASSIGNEE(S): Fujifilm Imaging Colorants Limited, UK; Bradbury, Lynn Patricia

SOURCE: PCT Int. Appl., 43pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007132150	A1	20071122	WO 2007-GB1556	20070427
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 GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM,
 KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK,
 MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO,
 RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT,
 TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
 IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,
 GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
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PRIORITY APPLN. INFO.:

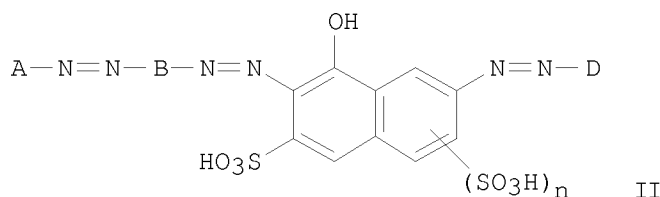
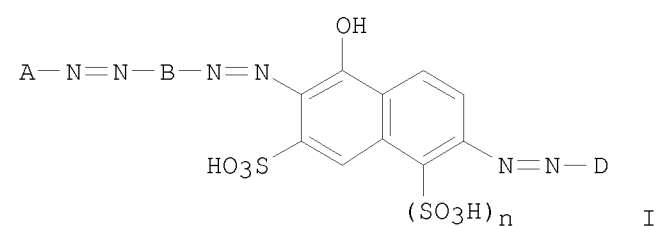
GB 2006-9091

A 20060509

OTHER SOURCE(S):

MARPAT 147:543238

GI



AB The compds. are used as colorants for ink-jet inks and comprise compds. of Formula I and compds. of Formula II or a salt thereof: wherein: A is an optionally substituted 8-hydroxynaphthyl; B is optionally substituted phenylene or naphthylene; n is 0 or 1; and D is an optionally substituted pyrazolyl group. Inks using the compds. have good storage stability and printability. Also provided are printing processes, ink compns. and ink-jet cartridges for use in an ink-jet printer and substrates printed using an ink-jet printer.

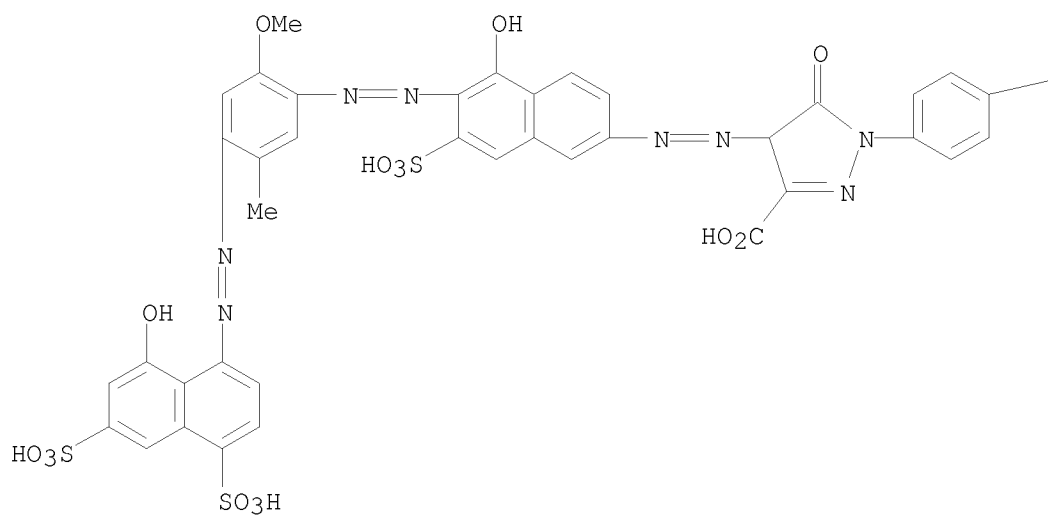
IT 957462-94-1P 957462-95-2P 957462-96-3P
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 957463-12-6P 957463-13-7P 957463-14-8P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(dye; manufacture of trisazo compds. for use as colorants in ink jet printing ink with good storage stability and printability)

RN 957462-94-1 CAPLUS

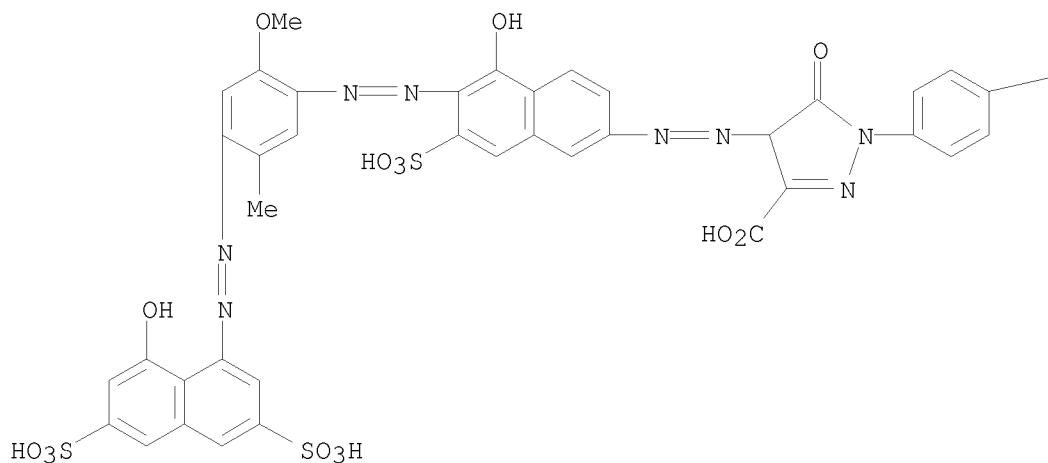
CN 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-4-[2-[5-hydroxy-6-[2-[4-[2-(8-hydroxy-4,6-disulfo-1-naphthalenyl)diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-7-sulfo-2-naphthalenyl]diazenyl]-5-oxo-1-(4-sulphophenyl)-, lithium salt (1:5) (CA INDEX NAME)



—SO₃H

● 5 Li

RN 957462-95-2 CAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-4-[2-[5-hydroxy-6-[2-[4-[2-(8-hydroxy-3,6-disulfo-1-naphthalenyl)diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-7-sulfo-2-naphthalenyl]diazenyl]-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

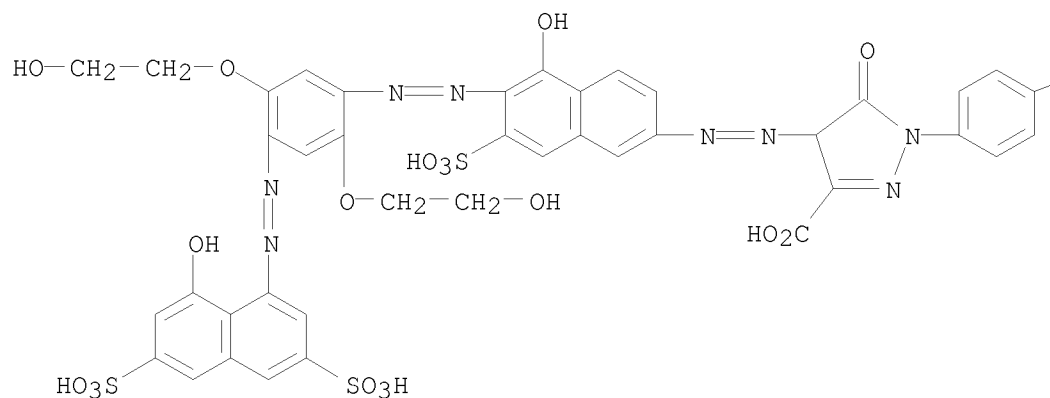


—SO₃H

RN 957462-96-3 CAPLUS

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PAGE 1-A



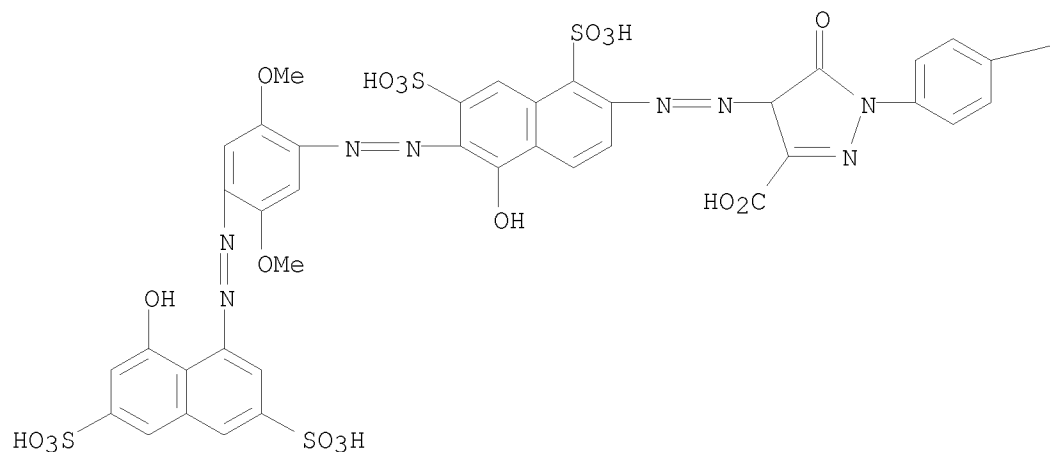
PAGE 1-B

—SO₃H

RN 957462-97-4 CAPLUS

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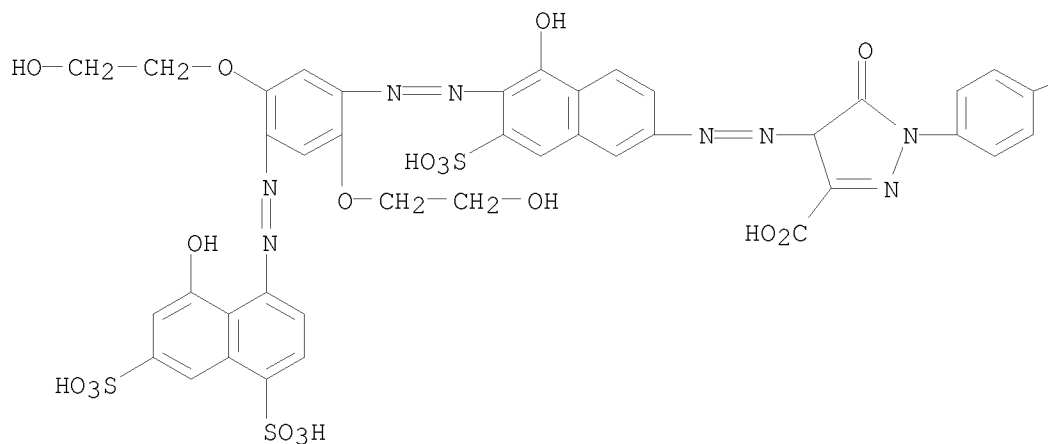
PAGE 1-A



—SO₃H

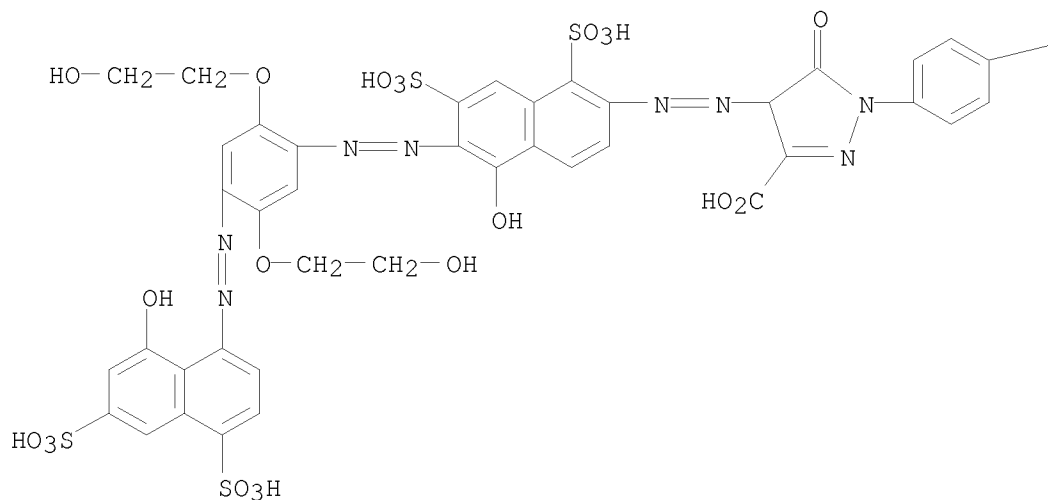
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—SO₃H

RN 957462-99-6 CAPLUS

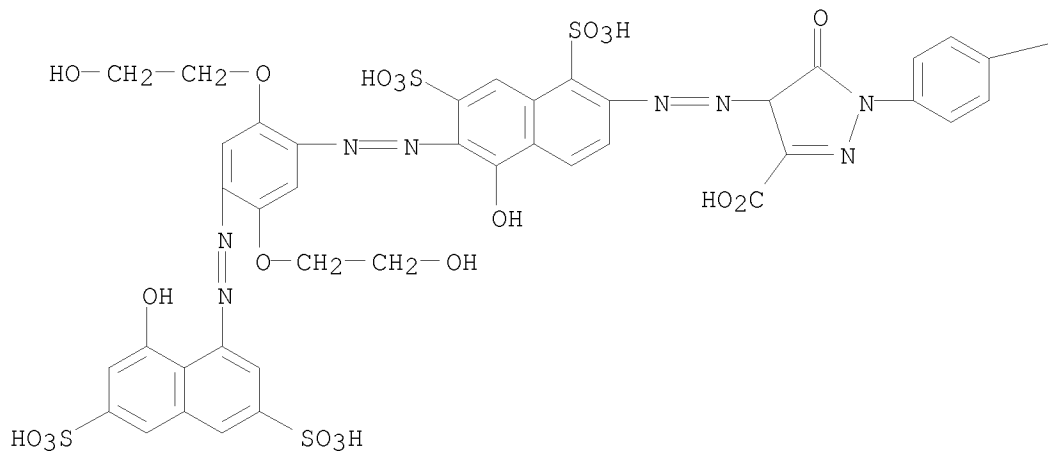
CN 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-4-[2-[5-hydroxy-6-[2-[4-[2-(8-hydroxy-4,6-disulfo-1-naphthalenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-1,7-disulfo-2-naphthalenyl]diazenyl]-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)



—SO₃H

RN 957463-00-2 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-4-[2-[5-hydroxy-6-[2-[4-[2-(8-hydroxy-3,6-disulfo-1-naphthalenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-1,7-disulfo-2-naphthalenyl]diazenyl]-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

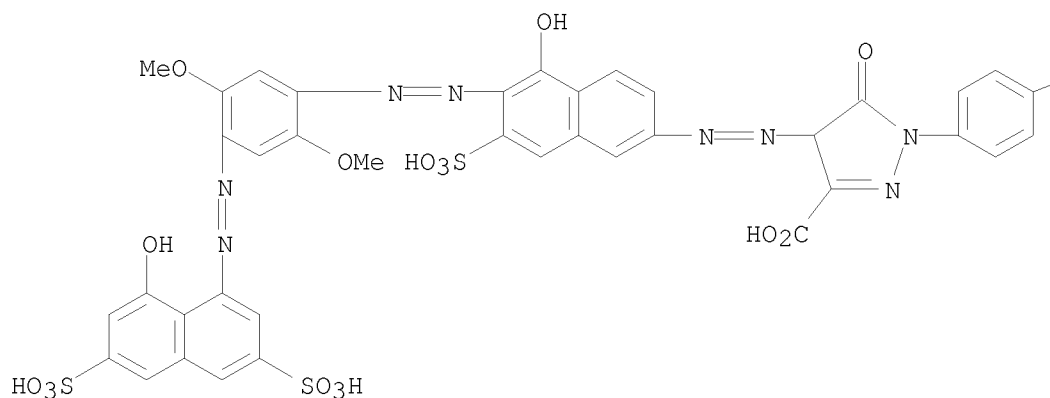


—SO₃H

RN 957463-01-3 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-4-[2-[5-hydroxy-6-[2-[4-[2-(8-hydroxy-3,6-disulfo-1-naphthalenyl)diazenyl]-2,5-dimethoxyphenyl]diazenyl]-7-sulfo-2-naphthalenyl]diazenyl]-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

PAGE 1-A

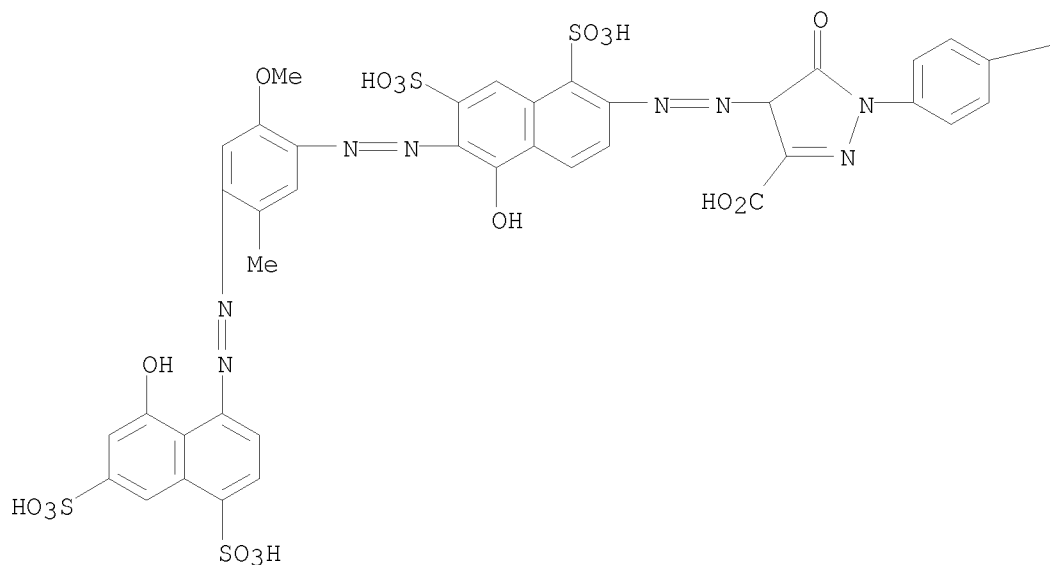


PAGE 1-B

—SO₃H

RN 957463-02-4 CAPLUS
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PAGE 1-A



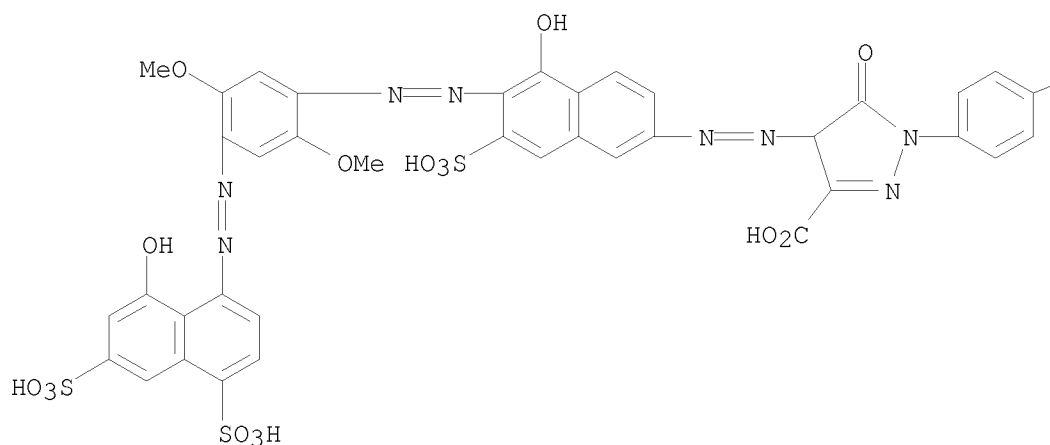
PAGE 1-B

—SO₃H

RN 957463-03-5 CAPLUS

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PAGE 1-A

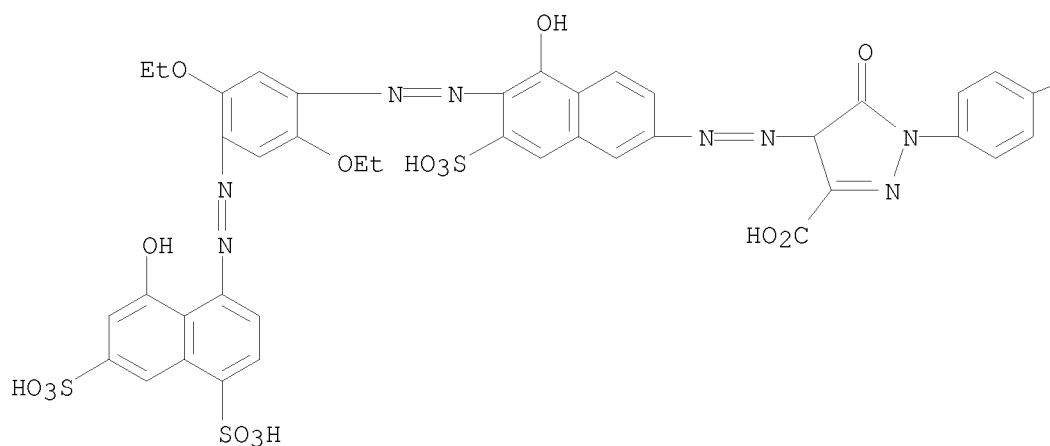


PAGE 1-B

SO3H

RN 957463-04-6 CAPLUS
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-diethoxy-4-[2-(8-hydroxy-4,6-disulfo-1-naphthalenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfohenyl)- (CA INDEX NAME)

PAGE 1-A



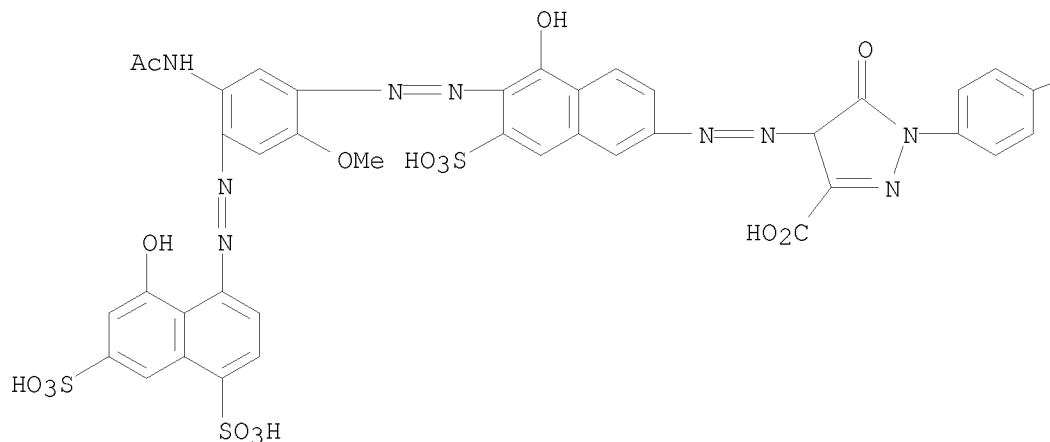
PAGE 1-B

SO3H

RN 957463-05-7 CAPLUS

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PAGE 1-A



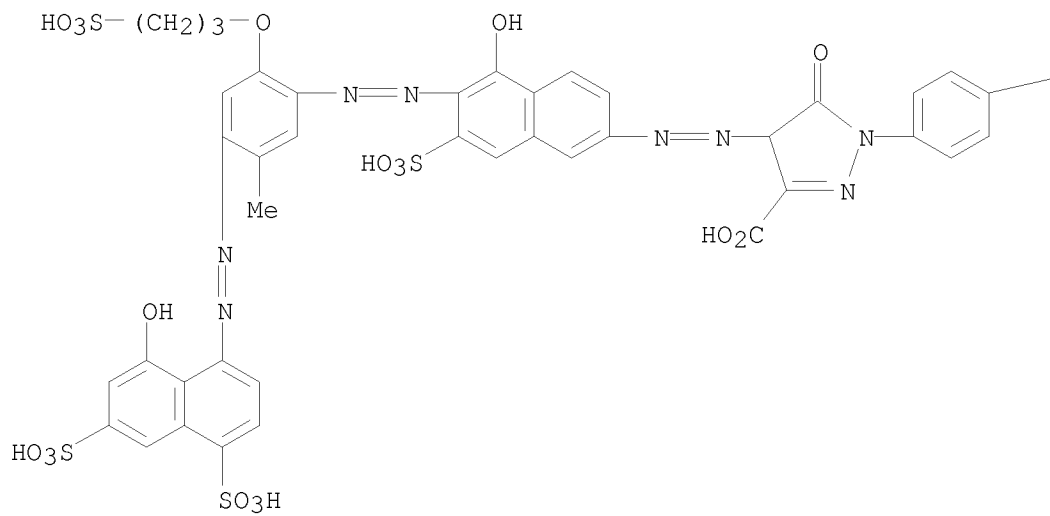
PAGE 1-B

SO₃H

RN 957463-06-8 CAPLUS

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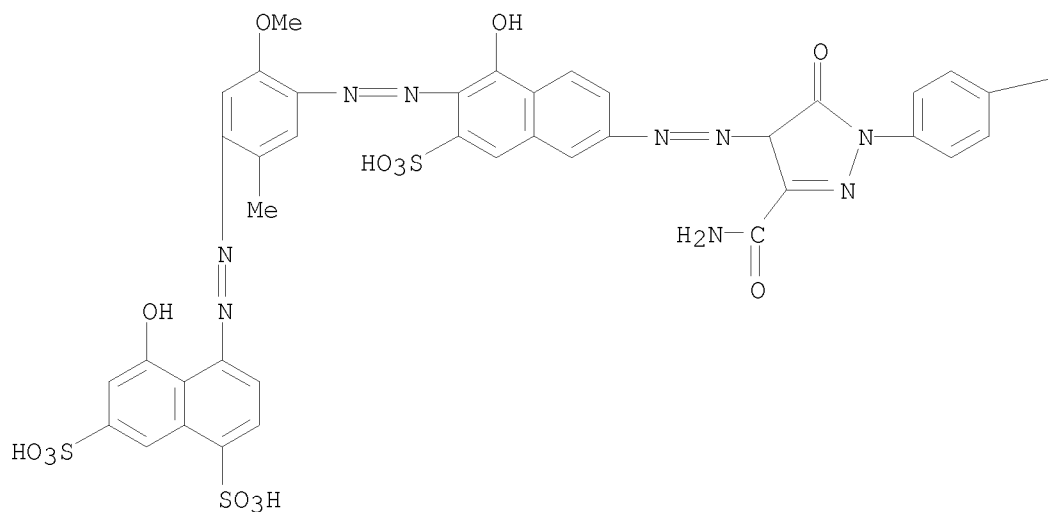
PAGE 1-A



—SO₃H

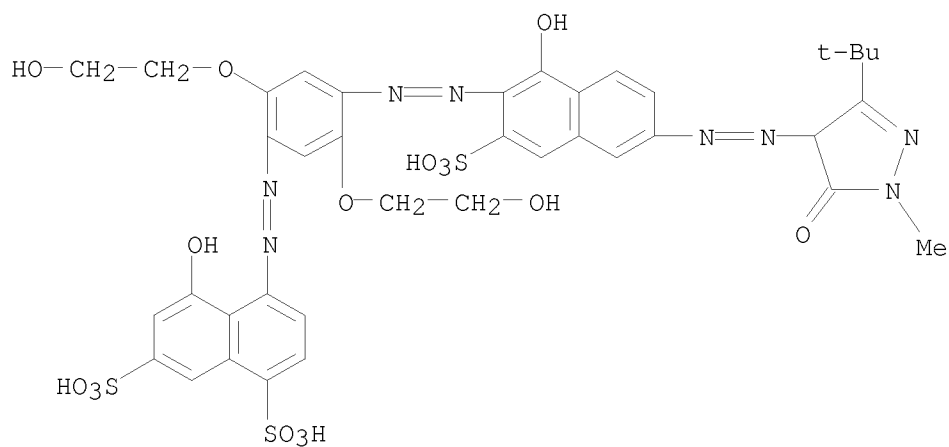
RN 957463-07-9 CAPLUS

CN 1,7-Naphthalenedisulfonic acid, 4-[2-[4-[2-[6-[2-[3-(aminocarbonyl)-4,5-dihydro-5-oxo-1-(4-sulfohenyl)-1H-pyrazol-4-yl]diazanyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazanyl]-5-methoxy-2-methylphenyl]diazanyl]-5-hydroxy- (CA INDEX NAME)

—SO₃H

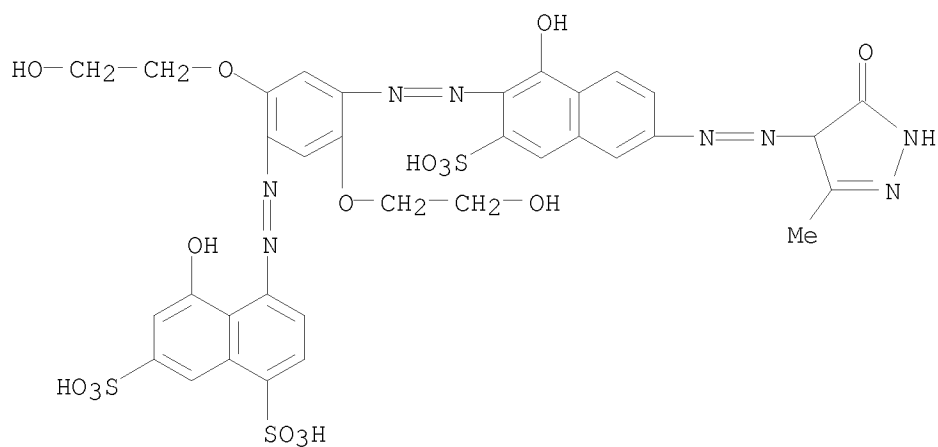
RN 957463-08-0 CAPLUS

CN 1,7-Naphthalenedisulfonic acid, 4-[2-[4-[2-[6-[2-[3-(1,1-dimethylethyl)-4,5-dihydro-1-methyl-5-oxo-1H-pyrazol-4-yl]diazanyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazanyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazanyl]-5-hydroxy- (CA INDEX NAME)



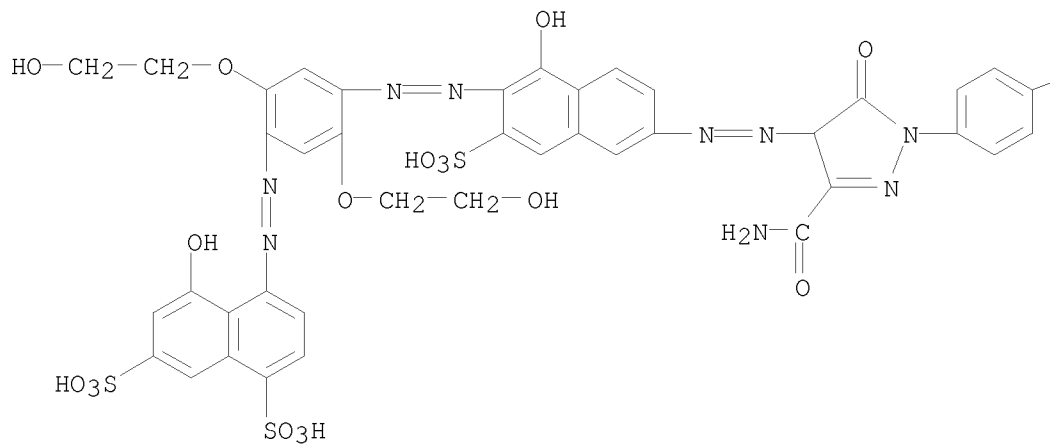
RN 957463-09-1 CAPLUS

CN 1,7-Naphthalenedisulfonic acid, 4-[2-[4-[2-[6-[2-(4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-4-yl)diazenyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy- (CA INDEX NAME)



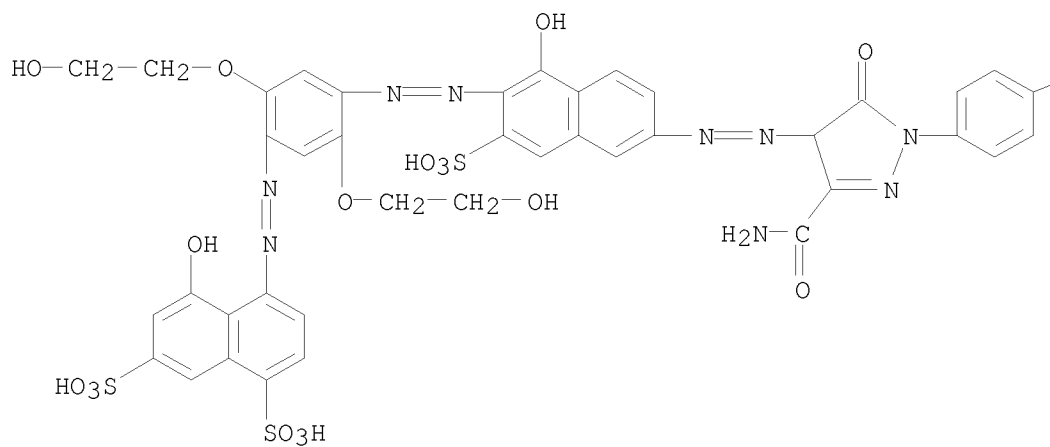
RN 957463-10-4 CAPLUS

CN 1,7-Naphthalenedisulfonic acid, 4-[2-[4-[2-[6-[2-[3-(aminocarbonyl)-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy- (CA INDEX NAME)



—SO₃H

RN 957463-11-5 CAPLUS
 CN Benzoic acid, 4-[3-(aminocarbonyl)-4,5-dihydro-4-[2-[5-hydroxy-6-[2-[4-[2-(8-hydroxy-4,6-disulfo-1-naphthalenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-7-sulfo-2-naphthalenyl]diazenyl]-5-oxo-1H-pyrazol-1-yl]- (CA INDEX NAME)

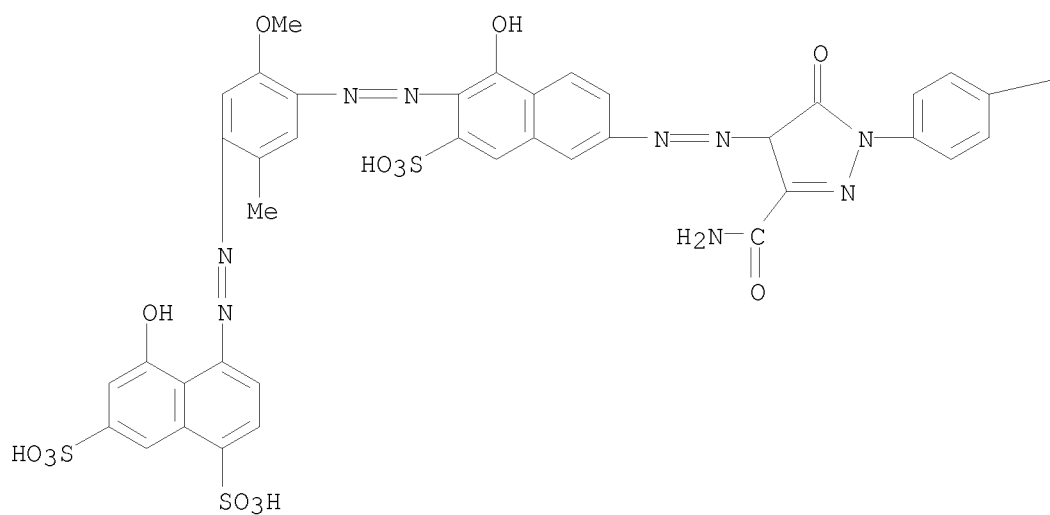


—CO₂H

RN 957463-12-6 CAPLUS
 CN Benzoic acid, 4-[3-(aminocarbonyl)-4,5-dihydro-4-[2-[5-hydroxy-6-[2-[4-[2-(8-hydroxy-4,6-disulfo-1-naphthalenyl)diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-7-sulfo-2-naphthalenyl]diazenyl]-5-oxo-1H-pyrazol-1-

y1]- (CA INDEX NAME)

PAGE 1-A

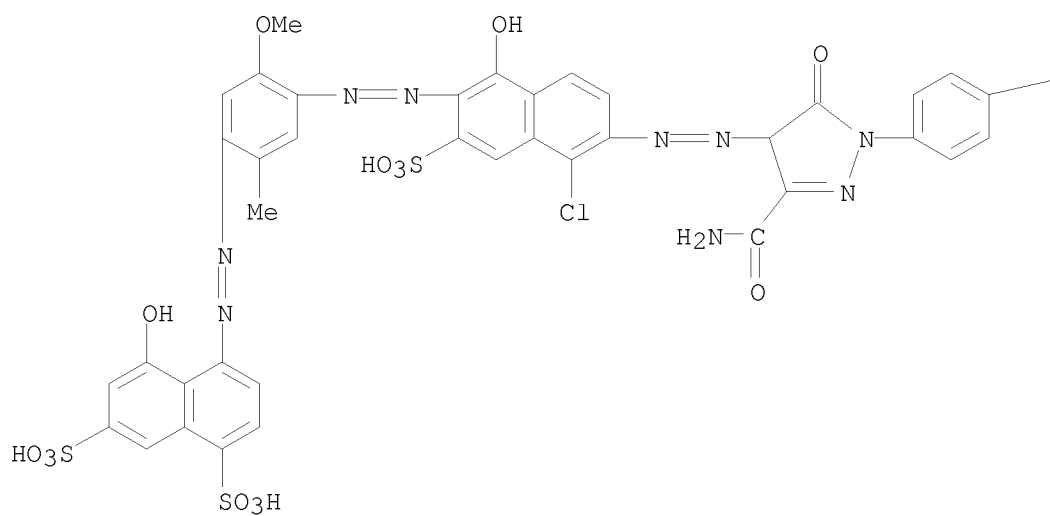


PAGE 1-B

—CO₂H

RN 957463-13-7 CAPLUS
 CN 1,7-Naphthalenedisulfonic acid, 4-[2-[4-[2-[6-[2-[3-(aminocarbonyl)-4,5-dihydro-5-oxo-1-(4-sulfohenyl)-1H-pyrazol-4-yl]diazenyl]-5-chloro-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]-5-methoxy-2-methylphenyl]diazenyl]-5-hydroxy- (CA INDEX NAME)

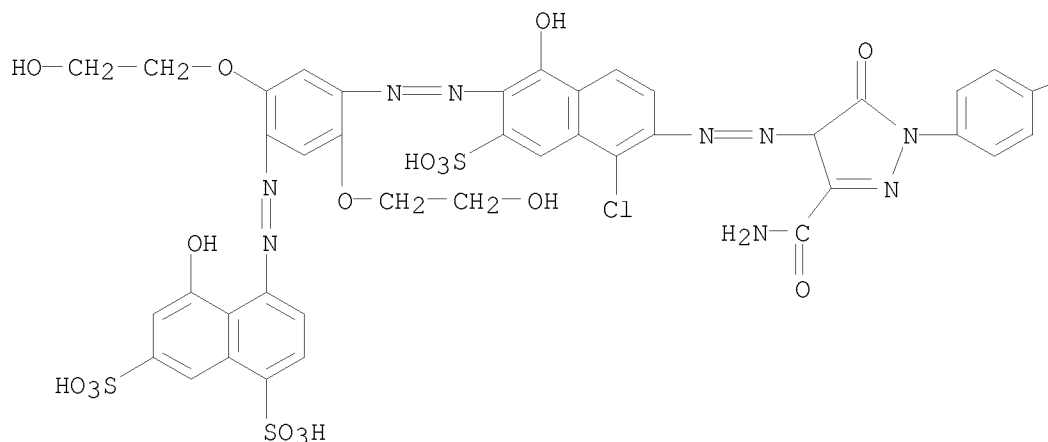
PAGE 1-A



—SO₃H

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PAGE 1-A



PAGE 1-B

—SO₃H

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

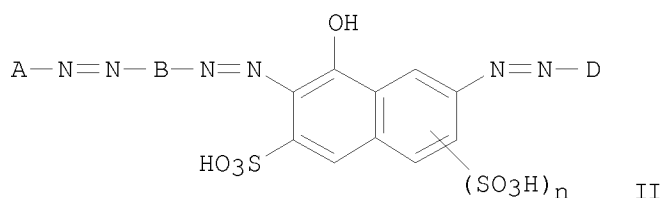
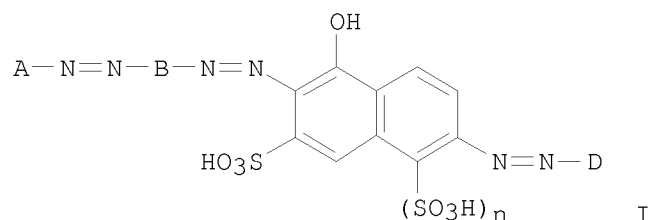
L15 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2007:1332477 CAPLUS
 DOCUMENT NUMBER: 147:543237
 TITLE: Trisazo compounds and ink jet printing ink compositions containing them
 INVENTOR(S): Mistry, Prahalad Manibhai
 PATENT ASSIGNEE(S): Fujifilm Imaging Colorants Limited, UK
 SOURCE: PCT Int. Appl., 38pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007132151	A1	20071122	WO 2007-GB1562	20070427
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK,				

MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO,
 RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT,
 TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
 IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,
 GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
 BY, KG, KZ, MD, RU, TJ, TM

IN 2008DN06842	A	20081024	IN 2008-DN6842	20080808
US 20090041939	A1	20090212	US 2008-224616	20080902
PRIORITY APPLN. INFO.:			GB 2006-9086	A 20060509
			US 2006-802765P	P 20060524
			WO 2007-GB1562	W 20070427

OTHER SOURCE(S): MARPAT 147:543237
 GI

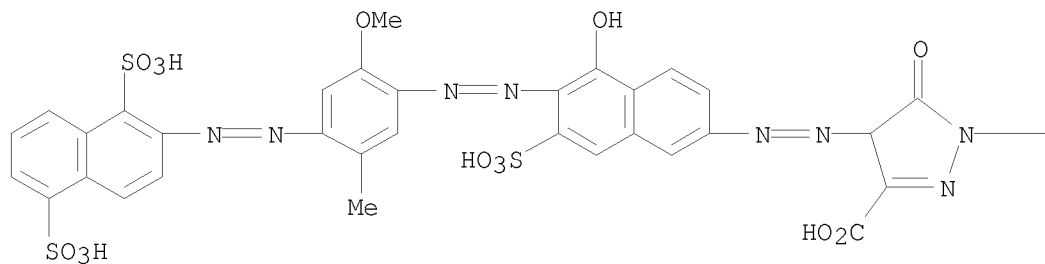


AB The compds. are used as colorants for ink-jet inks and comprise compds. of Formula I and compds. of Formula II or a salt thereof: wherein: A is a naphthyl group bearing sulfonic acid groups; B is optionally substituted phenylene or naphthylene; n is 0 or 1; and D is an optionally substituted pyrazolyl group. Inks using the compds. have good storage stability and printability. Also provided are printing processes, ink compns. and ink-jet cartridges for use in an ink-jet printer and substrates printed using an ink-jet printer.

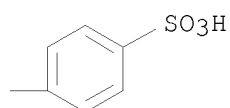
IT 957342-71-1P 957342-74-4P 957342-75-5P
 957342-76-6P 957342-78-8P 957342-81-3P
 957342-85-7P 957342-87-9P 957342-89-1P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (dye; manufacture of trisazo compds. for use as colorants in ink jet printing ink with good storage stability and printability)

RN 957342-71-1 CAPLUS

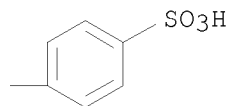
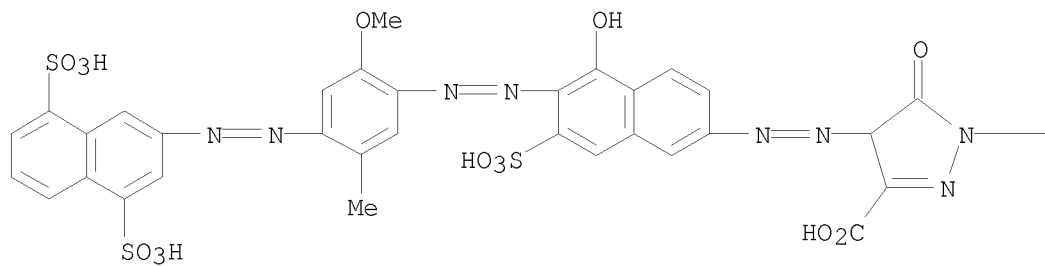
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(1,5-disulfo-2-naphthalenyl)diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfo-phenyl)-, lithium salt (1:5) (CA INDEX NAME)



●5 Li

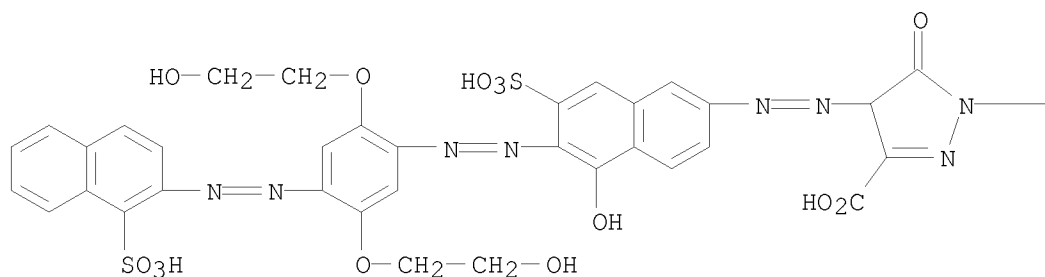


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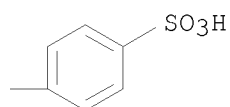


RN 957342-75-5 CAPLUS
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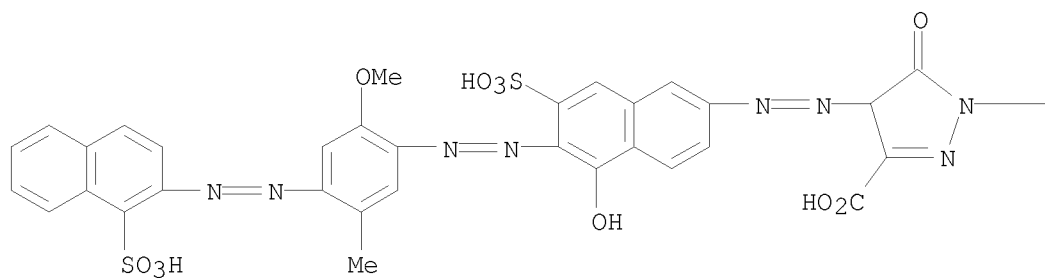


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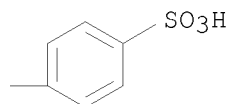


RN 957342-76-6 CAPLUS
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PAGE 1-A

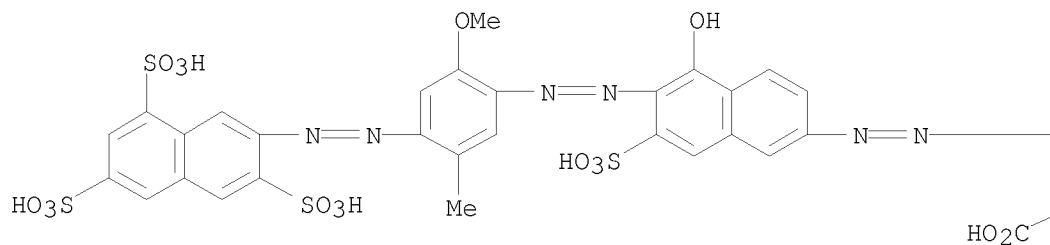


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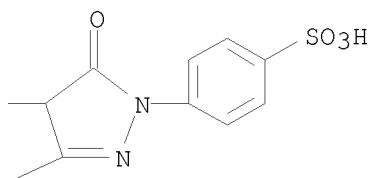


RN 957342-78-8 CAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-4-[2-[5-hydroxy-6-[2-[2-methoxy-5-methyl-4-[2-(3,6,8-trisulfo-2-naphthalenyl)]diazenyl]phenyl]diazenyl]-7-sulfo-2-naphthalenyl]diazenyl]-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

PAGE 1-A

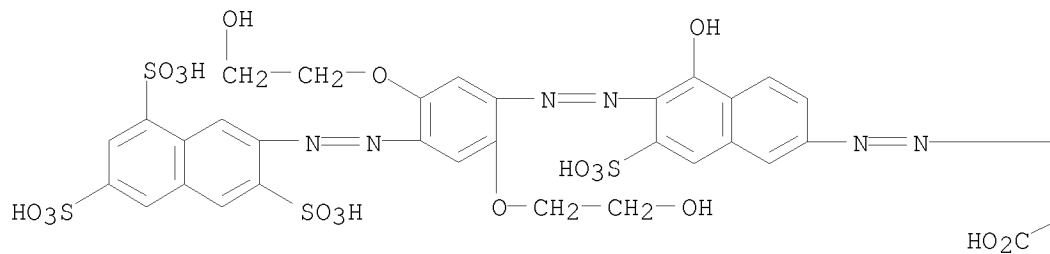


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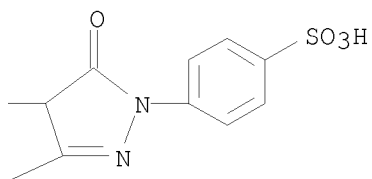


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PAGE 1-A

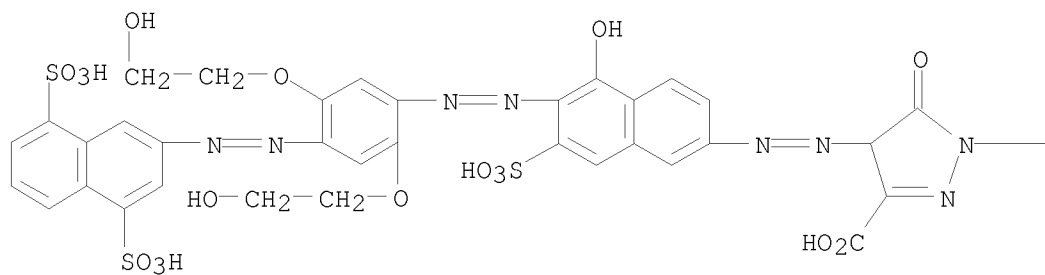


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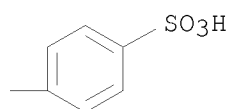


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PAGE 1-A

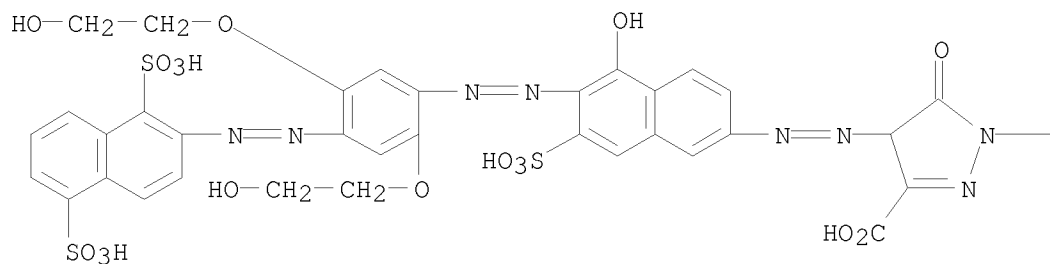


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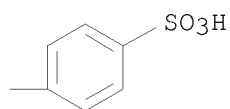


RN 957342-87-9 CAPLUS
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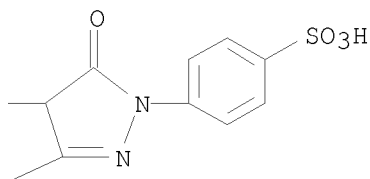
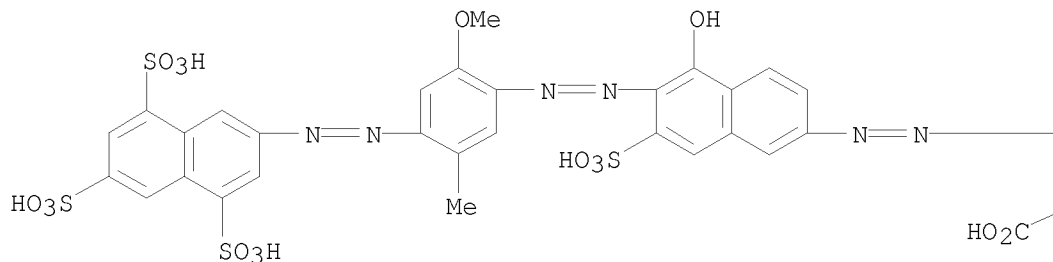
PAGE 1-A



PAGE 1-B



RN 957342-89-1 CAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-4-[2-[5-hydroxy-6-[2-[2-methoxy-5-methyl-4-[2-(4,6,8-trisulfo-2-naphthalenyl)diazenyl]phenyl]diazenyl]-7-sulfo-2-naphthalenyl]diazenyl]-5-oxo-1-(4-sulfo-phenyl)- (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:173868 CAPLUS

DOCUMENT NUMBER: 146:230985

TITLE: Process for printing an image on a substrate, composition and azo dye compound for use in the composition

INVENTOR(S): Monahan, Lilian; Double, Philip John; Bradbury, Roy

PATENT ASSIGNEE(S): Fujifilm Imaging Colorants Limited, UK

SOURCE: PCT Int. Appl., 50pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007017631	A2	20070215	WO 2006-GB2862	20060731
WO 2007017631	A3	20070614		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA			
EP 1915431	A2	20080430	EP 2006-765174	20060731
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR			
JP 2009504831	T	20090205	JP 2008-525613	20060731

PRIORITY APPLN. INFO.:

GB 2005-16243

A 20050808

GB 2005-16244

A 20050808

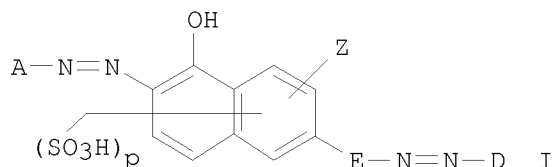
WO 2006-GB2862

W 20060731

OTHER SOURCE(S):

MARPAT 146:230985

GI



AB A process for printing an image on a substrate with high d. and good lightfastness, comprising applying to the substrate an ink composition which comprises a liquid medium and a compound of formula I; wherein: A and D each independently represent optionally substituted aryl or optionally substituted heteroaryl; E represents optionally substituted pyrazolyl; Z represents H, halogen, nitro, cyano, hydroxy, amino, carboxy, optionally substituted alkyl, optionally substituted alkoxy or optionally substituted aryloxy; and p is an integer from 0 to 5; provided that E does not have an optionally substituted carbonamide group of formula - CONR1R2 directly attached to it, wherein R1 and R2 each independently represent H, optionally substituted alkyl, optionally substituted cycloalkyl, or optionally substituted aryl. The printing is preferably ink jet printing. Also provided are compds. of formula I and ink compns. containing the same.

IT 924311-51-3 924311-52-4 924311-55-7

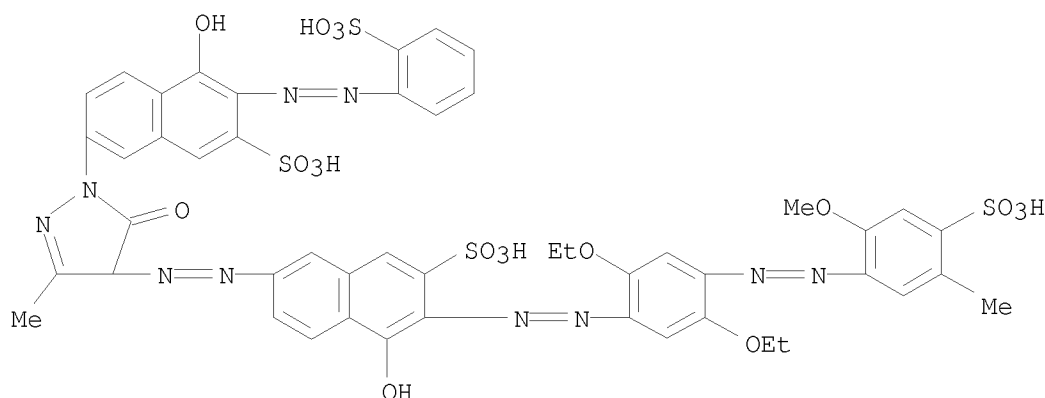
924311-56-8

RL: TEM (Technical or engineered material use); USES (Uses)

(dye; manufacture of diazo naphthalene compds. and compns. for use in ink-jet printing)

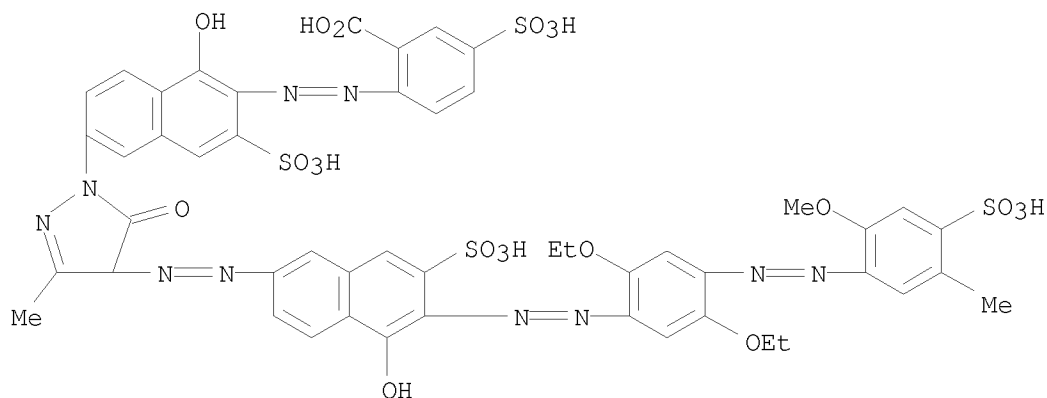
RN 924311-51-3 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[2-[2,5-diethoxy-4-[2-(2-methoxy-5-methyl-4-sulfo-6-[2-(2-sulfo-phenyl)diazenyl]-2-naphthalenyl]-3-methyl-5-oxo-1H-pyrazol-4-yl]diazenyl]-4-hydroxy- (CA INDEX NAME)



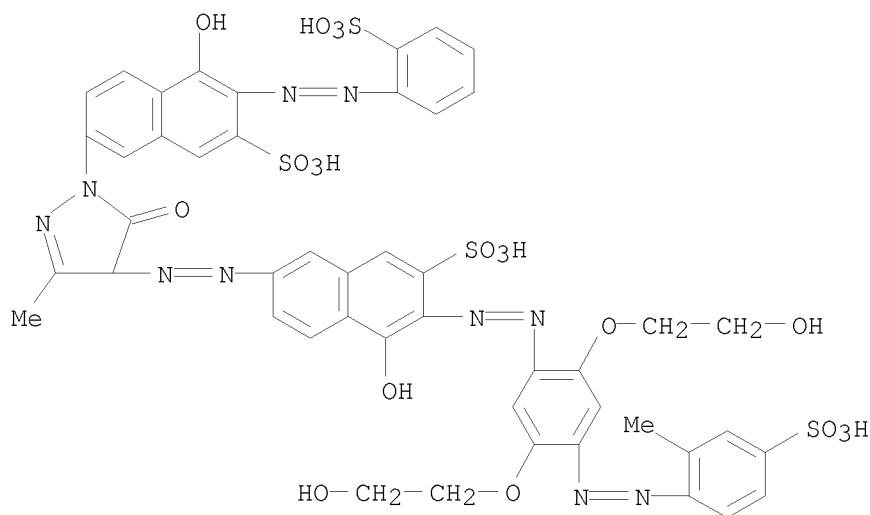
RN 924311-52-4 CAPLUS

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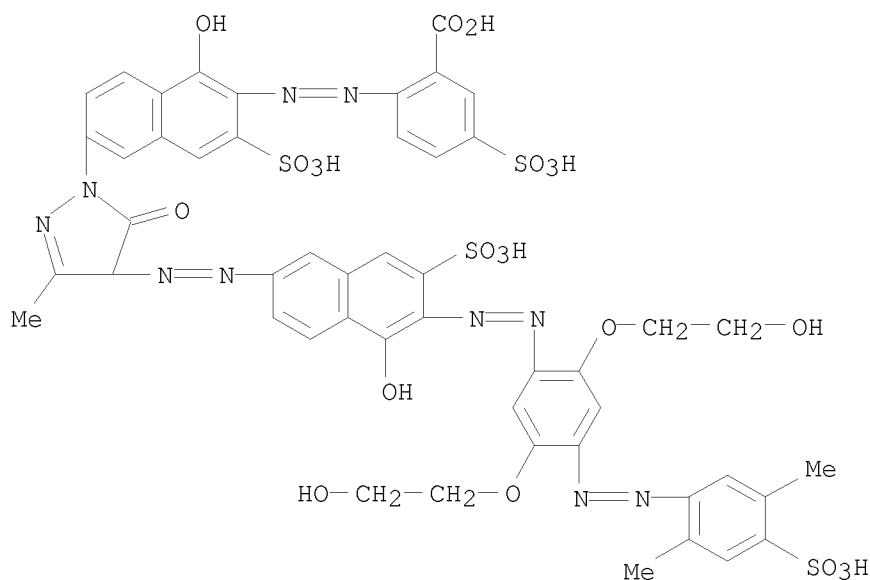
RN 924311-55-7 CAPLUS

CN 2-Naphthalenesulfonic acid, 3-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(2-methyl-4-sulfophenyl)diazenyl]phenyl]diazenyl]-7-[2-[4,5-dihydro-1-[5-hydroxy-7-sulfo-6-[2-(2-sulfophenyl)diazenyl]-2-naphthalenyl]-3-methyl-5-oxo-1H-pyrazol-4-yl]diazenyl]-4-hydroxy- (CA INDEX NAME)



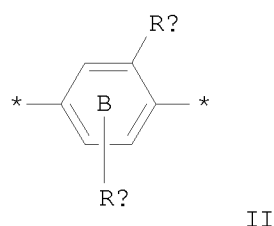
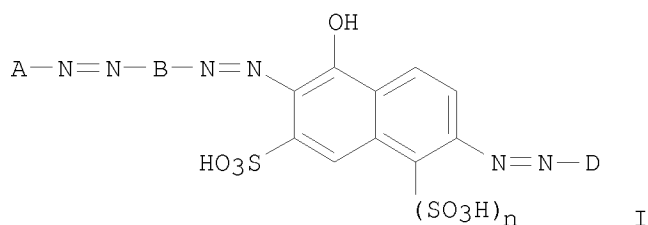
RN 924311-56-8 CAPLUS

CN Benzoic acid, 2-[2-[6-[4-[2-[6-[2-[4-[2-(2,5-dimethyl-4-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-1-yl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]-5-sulfo- (CA INDEX NAME)



L15 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2005:490398 CAPLUS
 DOCUMENT NUMBER: 143:28079
 TITLE: Trisazo-dyestuffs for use as dyes and ink-jet inks
 INVENTOR(S): Mistry, Prahalad Manibhai; Bradbury, Roy
 PATENT ASSIGNEE(S): Avecia Inkjet Limited, UK
 SOURCE: PCT Int. Appl., 59 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005052065	A1	20050609	WO 2004-GB4868	20041118
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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PRIORITY APPLN. INFO.:			GB 2003-26980	A 20031120
			GB 2003-26997	A 20031120
			WO 2004-GB4868	W 20041118
OTHER SOURCE(S):		MARPAT 143:28079		
GI				



AB The invention relates to a compound of formula (I) or salt thereof: wherein A is optionally substituted Ph or naphthyl; B is optionally substituted phenylene or naphthylene; n is 0 or 1; and D is a pyrazolyl group, with the proviso that when A is an optionally substituted Ph group and B is a phenylene group of formula: (II); wherein Ra is OH or a C1-4-alkoxy group; and Rb is H or a C1-4-alkyl group, hydroxy group, C1-4-alkoxy group, C1-3-dialkylamino group or a group of the formula NHCORc (wherein Rc is C1-3-alkyl or an amino group); and * shows the point of attachment to the azo linkages on B in formula (I); A is free from nitro groups. Also, claimed are compds., compns. and ink-jet cartridges for use in an ink-jet printer and substrate printed with an ink-jet printer.

IT 852909-45-6P 852909-46-7P 852909-47-8P
852909-48-9P 852909-49-0P 852909-50-3P
852909-51-4P 852909-52-5P 852909-53-6P
852909-54-7P 852909-55-8P 852909-56-9P
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852909-60-5P 852909-61-6P 852909-62-7P
852909-63-8P 852909-64-9P 852909-65-0P
852909-66-1P 852909-67-2P 852909-68-3P
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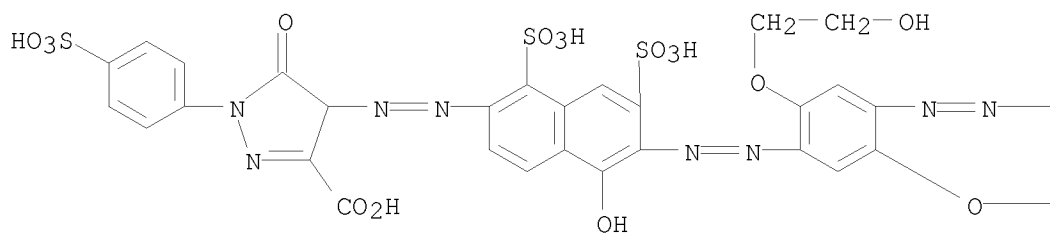
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(preparation of trisazo-dyestuffs for use as dyes and ink-jet inks)

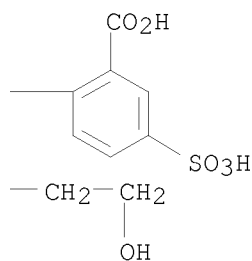
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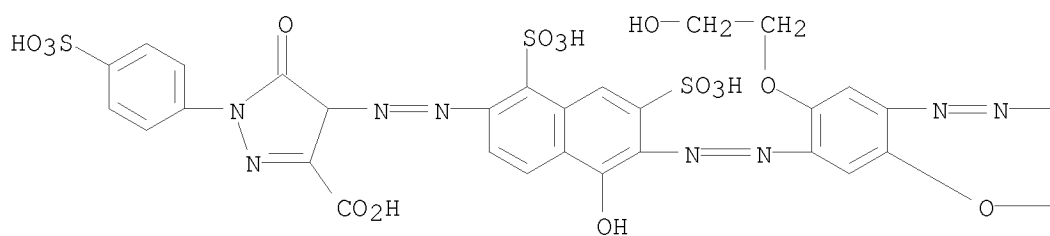
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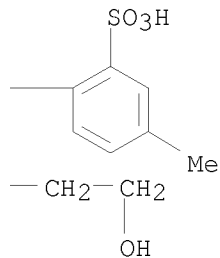
RN 852909-46-7 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methyl-2-sulfo-phenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfo-phenyl)- (CA INDEX NAME)

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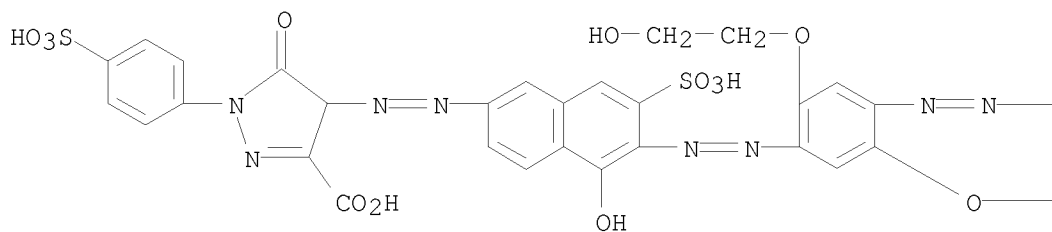


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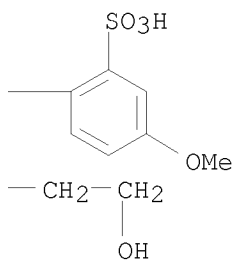
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methyl-2-sulfo-phenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfo-phenyl)- (CA INDEX NAME)

(4-methoxy-2-sulfophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

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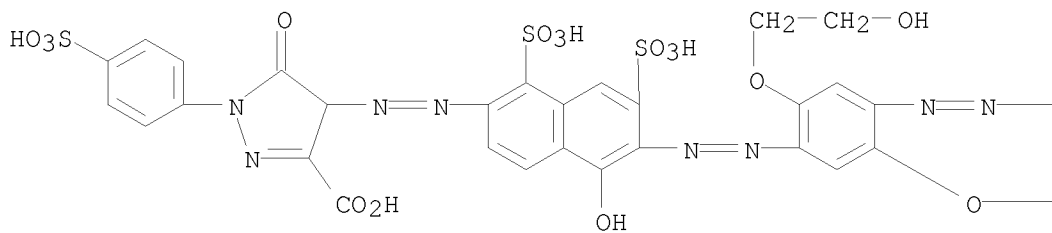


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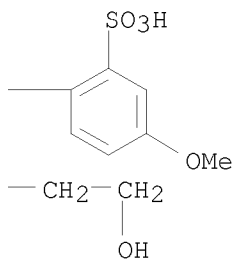


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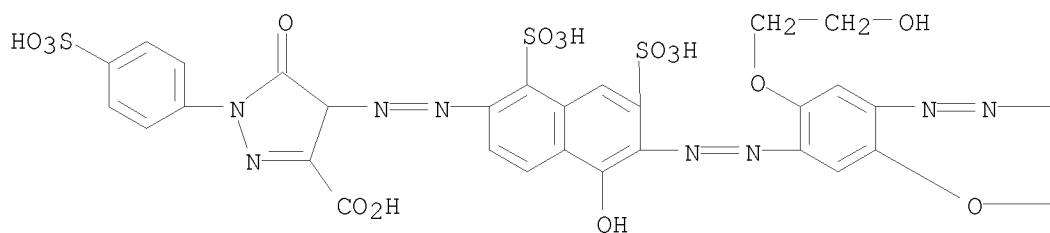
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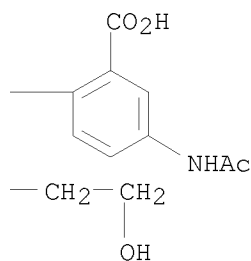
RN 852909-49-0 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-[4-(acetylamino)-2-carboxyphenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-(CA INDEX NAME)

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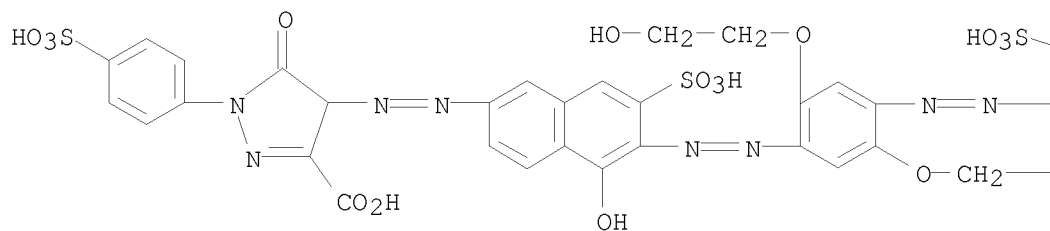
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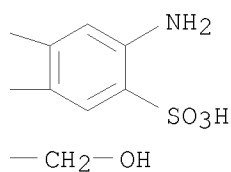
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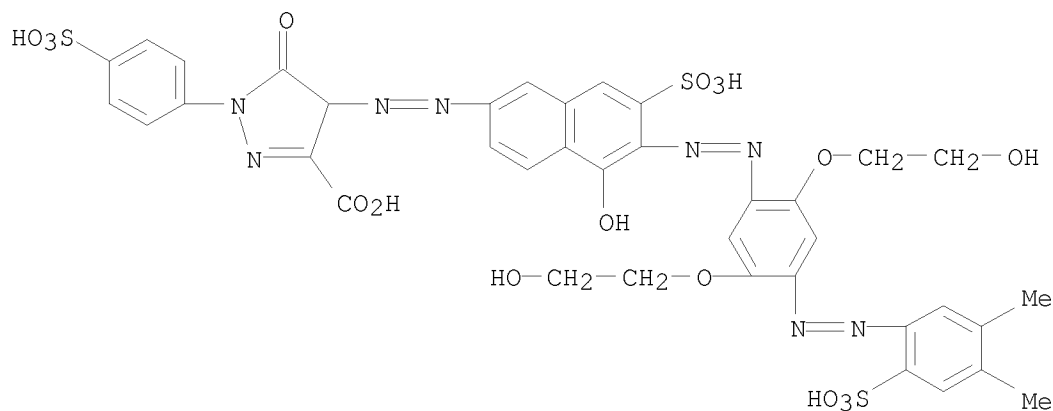


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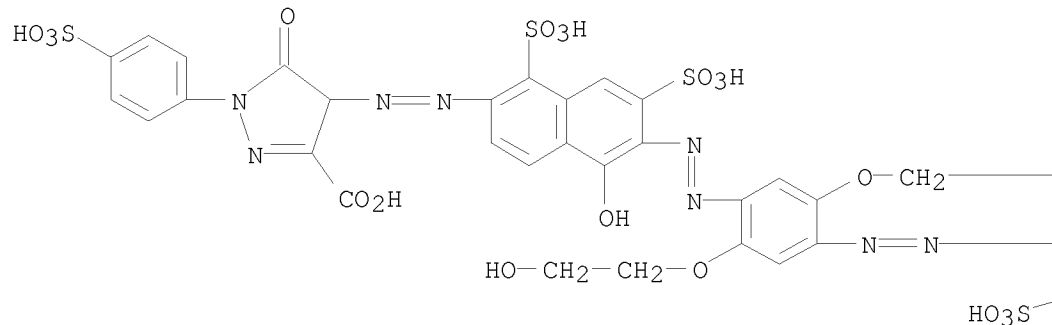
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(4,5-dimethyl-2-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)



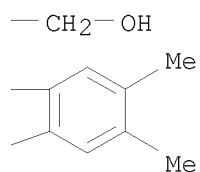
RN 852909-52-5 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(4,5-dimethyl-2-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

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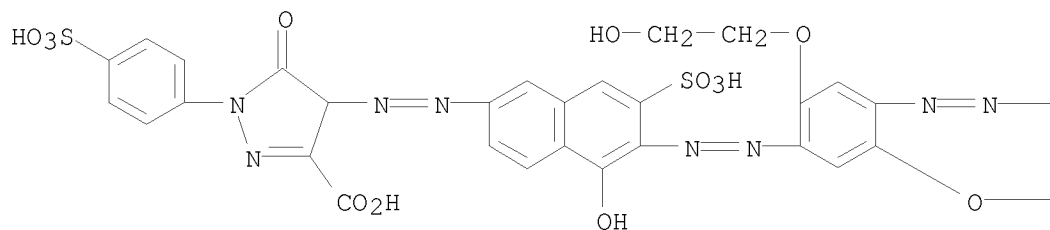
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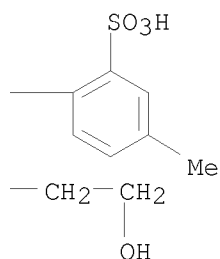
RN 852909-53-6 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methyl-2-sulfo-phenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfo-phenyl)- (CA INDEX NAME)

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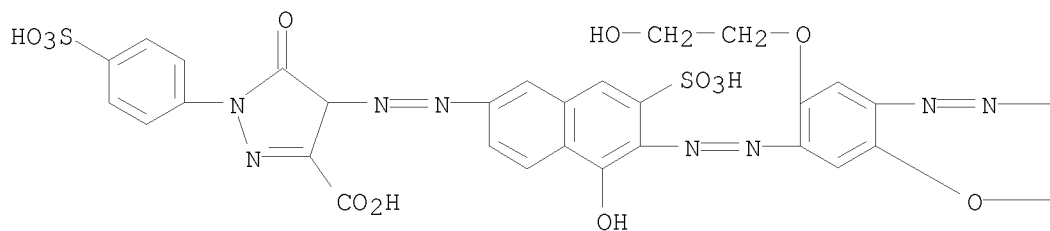
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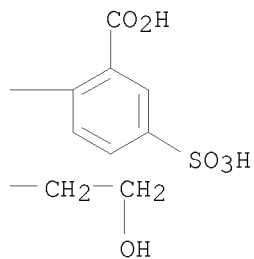


RN 852909-54-7 CAPLUS

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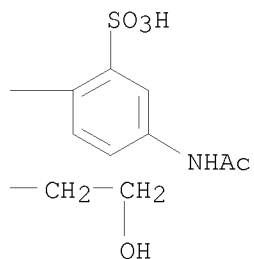
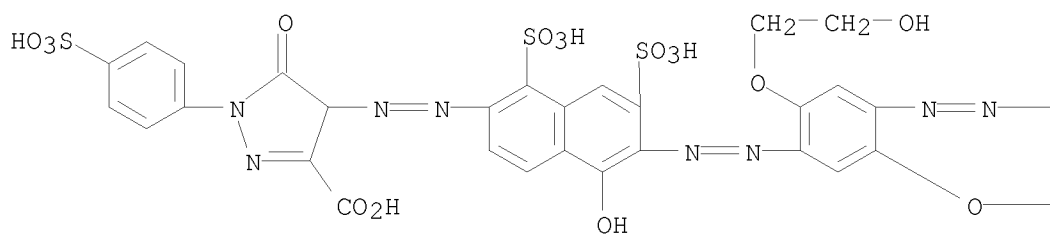
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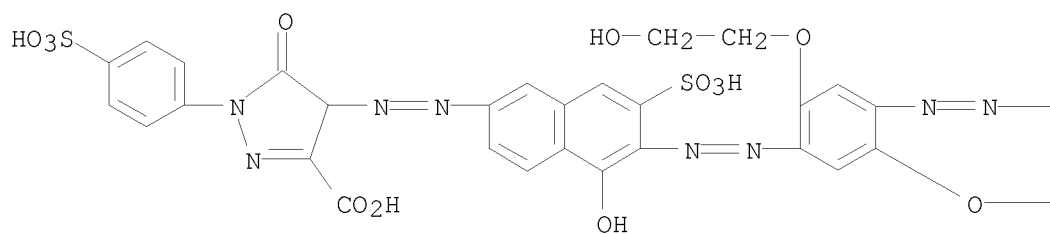
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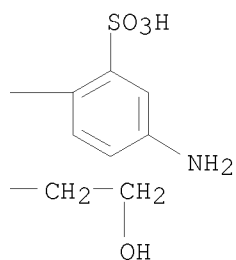
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(4-(acetylamino)-2-sulfophenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-(CA INDEX NAME)



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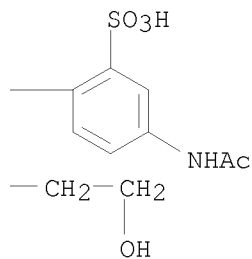
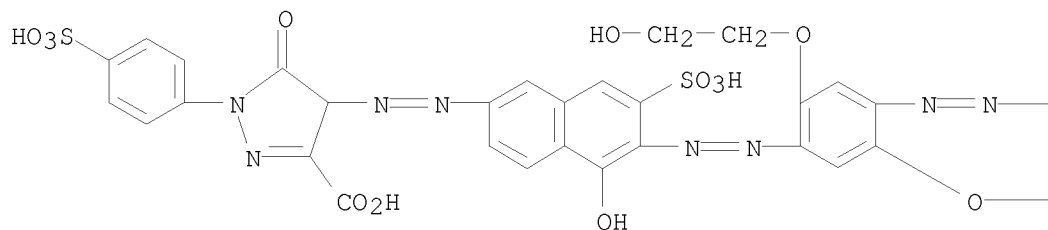
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(4-amino-2-sulfophenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-(CA INDEX NAME)





RN 852909-57-0 CAPLUS

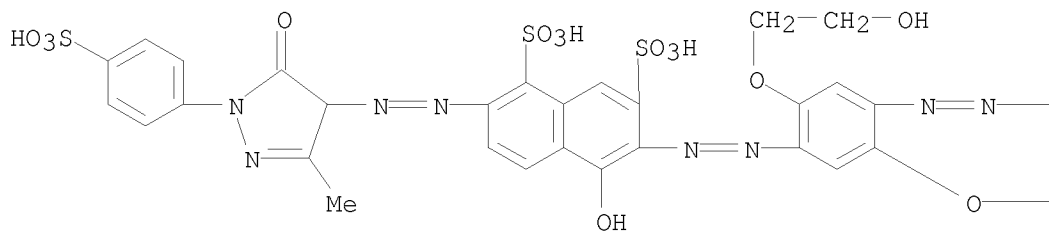
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-[4-(acetylamino)-2-sulfophenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)



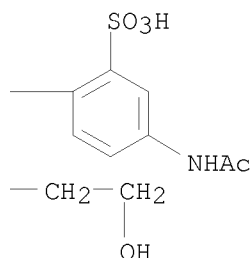
RN 852909-58-1 CAPLUS

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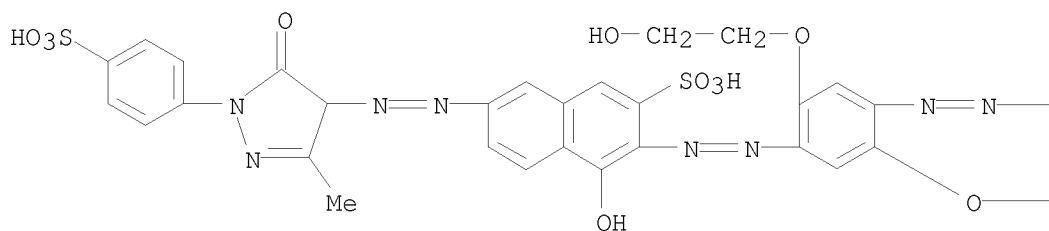
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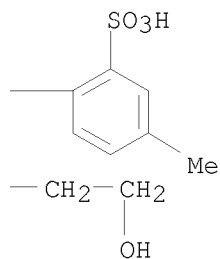
RN 852909-59-2 CAPLUS

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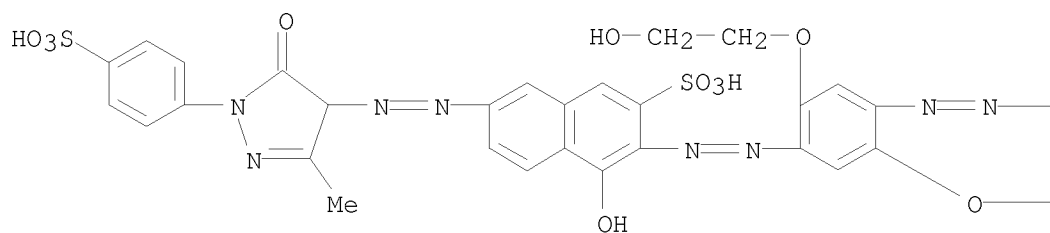
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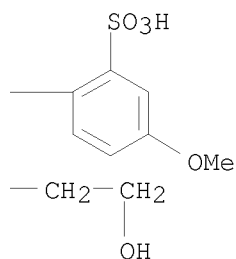
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CN 2-Naphthalenesulfonic acid, 3-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methoxy-2-sulfophenyl)diazenyl]phenyl]diazenyl]-7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-4-hydroxy- (CA INDEX NAME)

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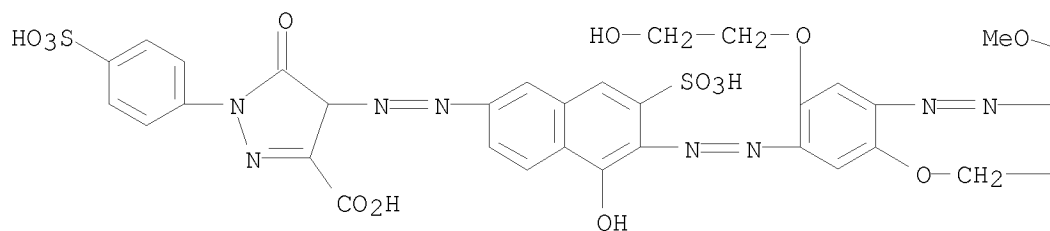


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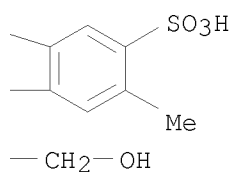


RN 852909-61-6 CAPLUS
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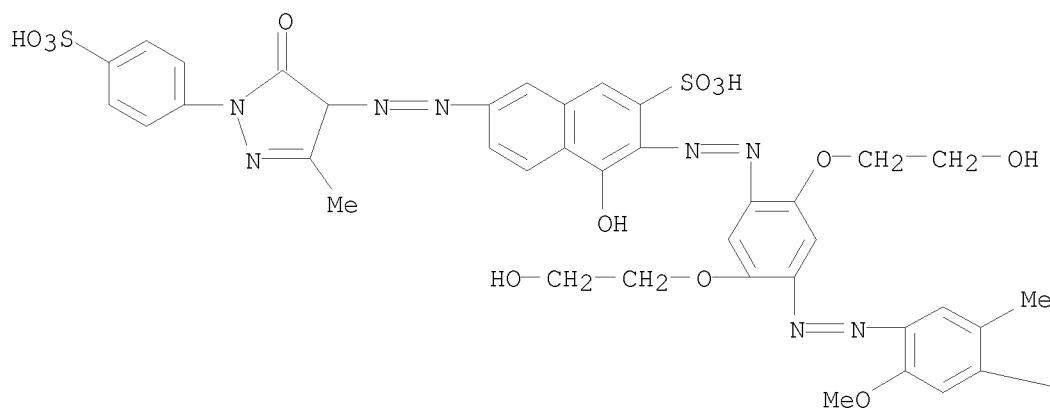


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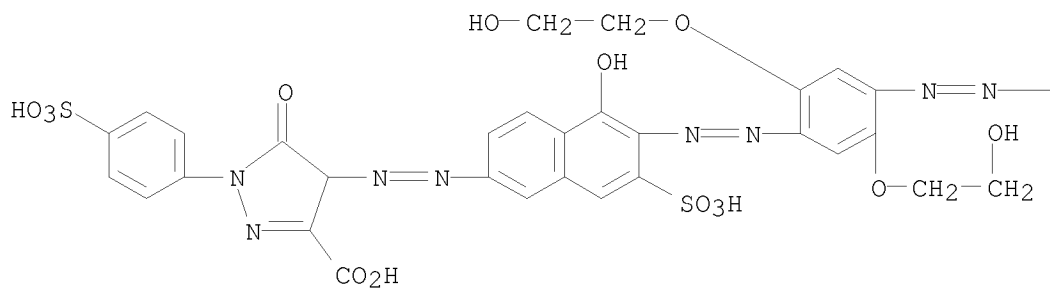


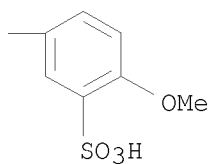
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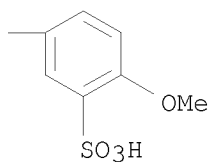
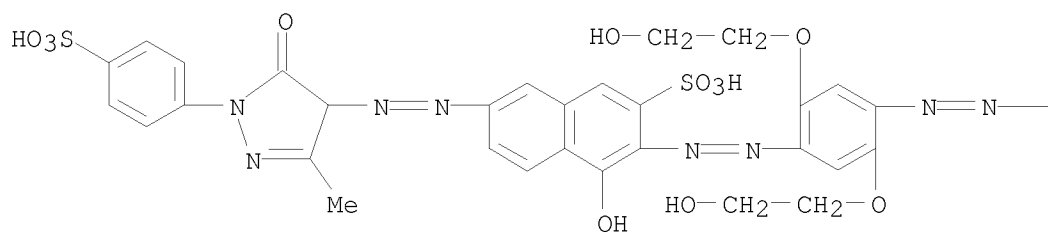
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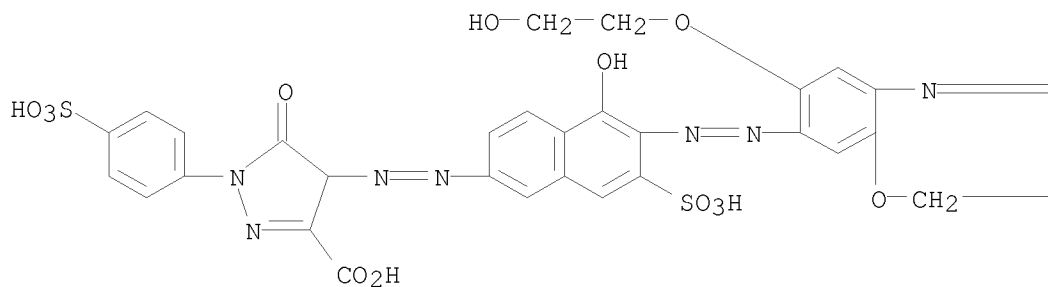
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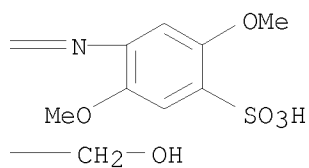
CN 2-Naphthalenesulfonic acid, 3-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methoxy-3-sulfophenyl)diazenyl]phenyl]diazenyl]-7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-4-hydroxy- (CA INDEX NAME)



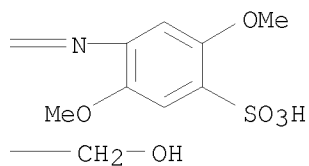
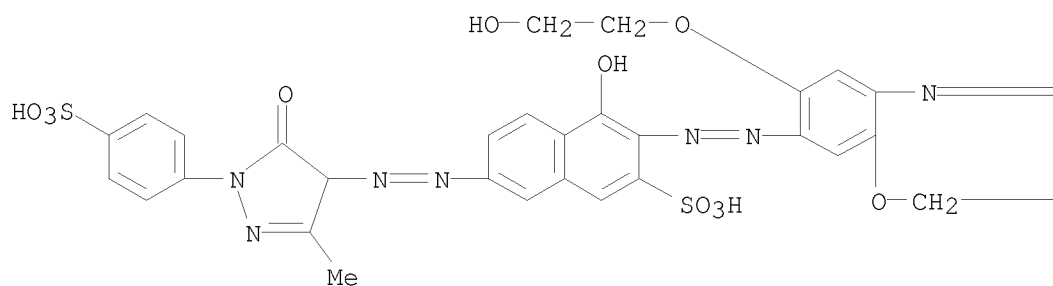
RN 852909-65-0 CAPLUS

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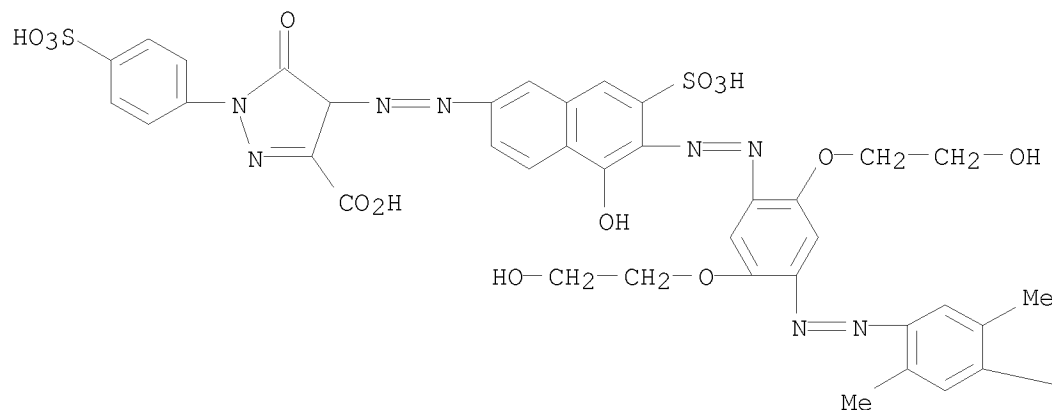




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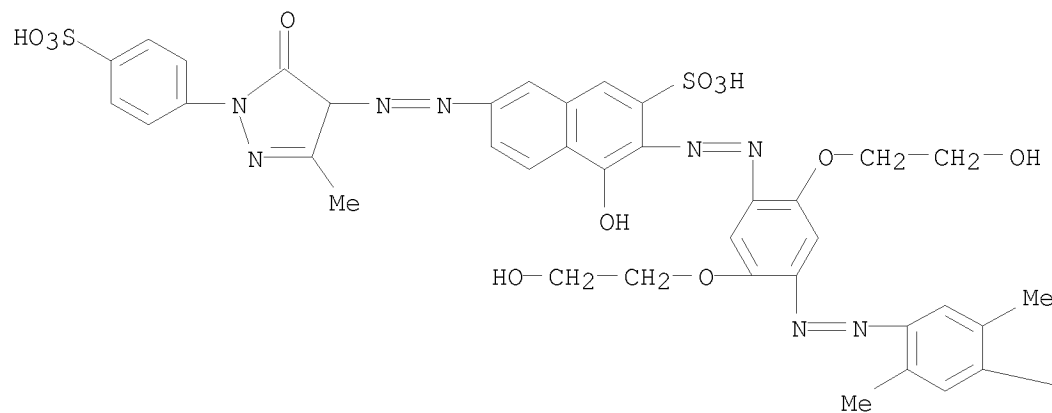
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 CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(2,5-dimethyl-4-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)



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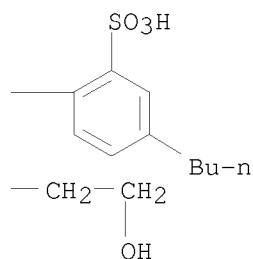
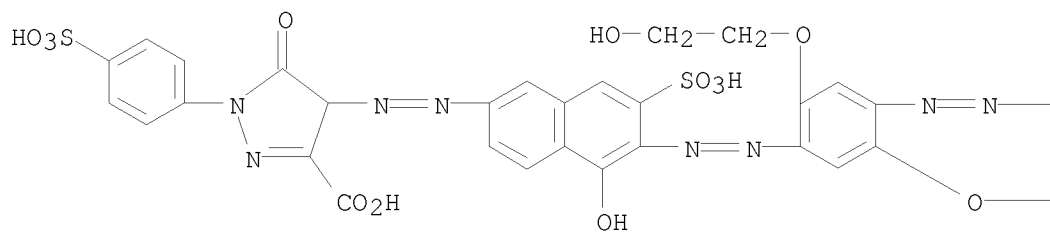
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(CA INDEX NAME)



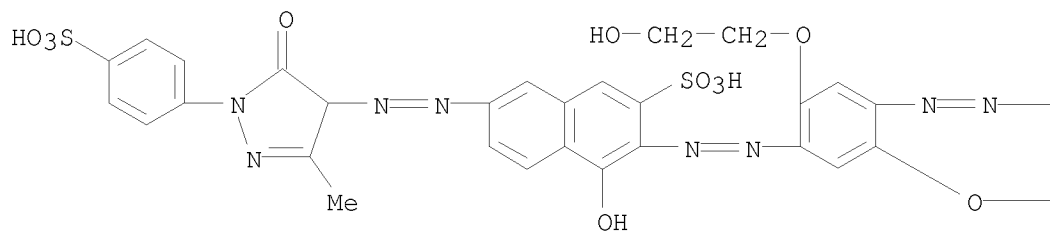
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RN 852909-69-4 CAPLUS
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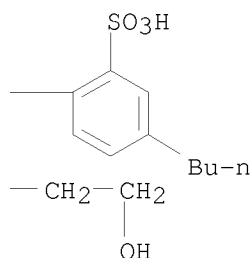


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 CN 2-Naphthalenesulfonic acid, 3-[2-[4-[2-(4-butyl-2-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-4-hydroxy- (CA INDEX NAME)

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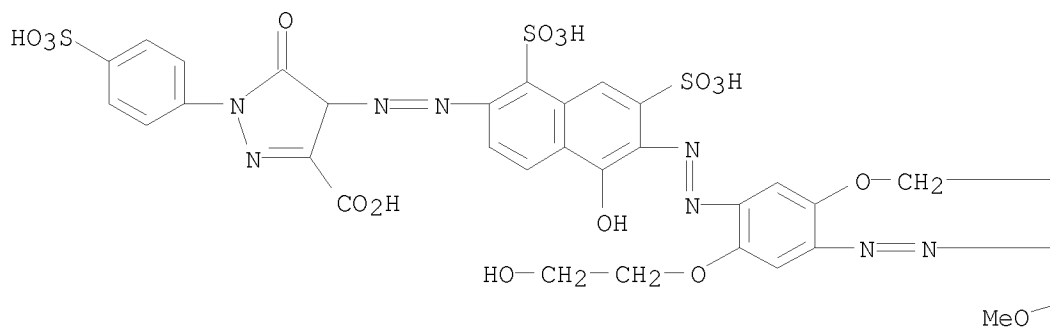


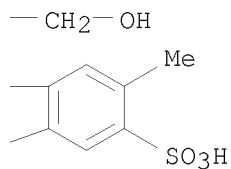
PAGE 1-B



RN 852909-71-8 CAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(2-methoxy-5-methyl-4-sulfophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

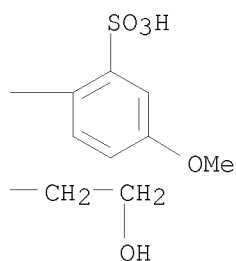
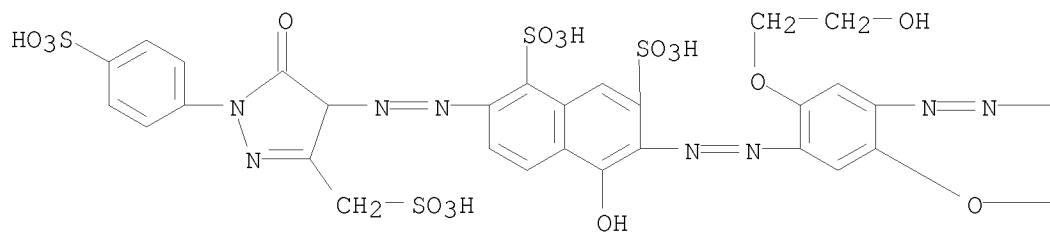
PAGE 1-A





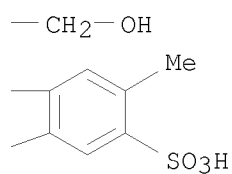
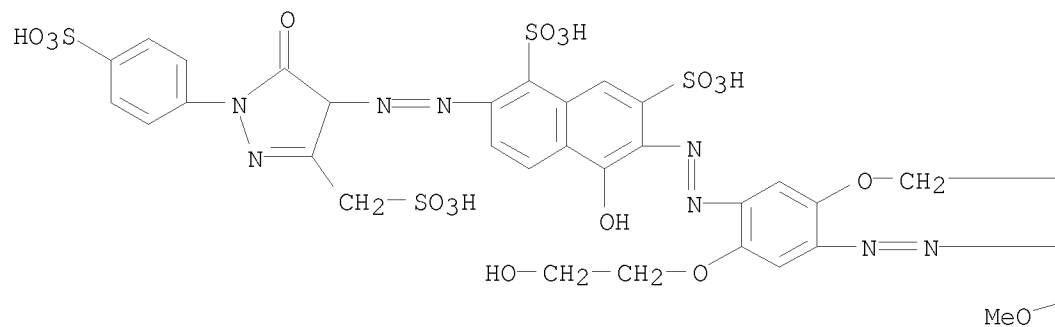
RN 852909-72-9 CAPLUS

CN 1,7-Naphthalenedisulfonic acid, 6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methoxy-2-sulfophenyl)diazenyl]phenyl]diazenyl]-2-[2-[4,5-dihydro-5-oxo-3-(sulfomethyl)-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-5-hydroxy- (CA INDEX NAME)

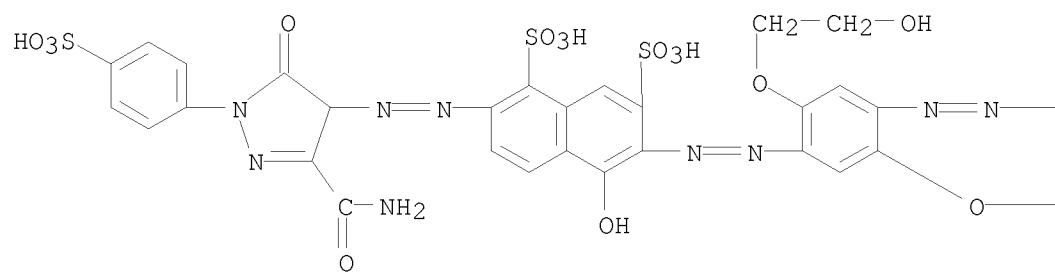


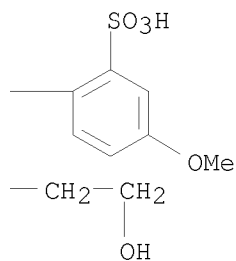
RN 852909-73-0 CAPLUS

CN 1,7-Naphthalenedisulfonic acid, 6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(2-methoxy-5-methyl-4-sulfophenyl)diazenyl]phenyl]diazenyl]-2-[2-[4,5-dihydro-5-oxo-3-(sulfomethyl)-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-5-hydroxy- (CA INDEX NAME)



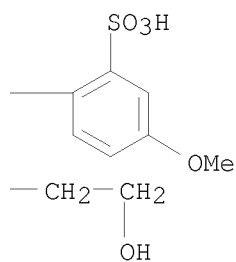
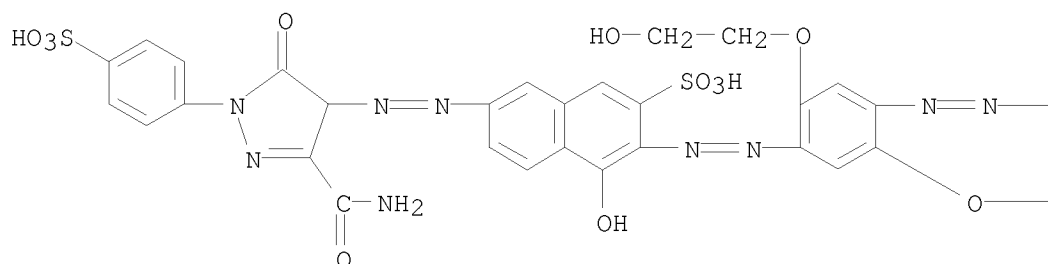
RN 852909-74-1 CAPLUS
 CN 1,7-Naphthalenedisulfonic acid, 2-[2-[3-(aminocarbonyl)-4,5-dihydro-5-oxo-1-(4-sulfohenyl)-1H-pyrazol-4-yl]diazanyl]-6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methoxy-2-sulfohenyl)diazanyl]phenyl]diazanyl]-5-hydroxy- (CA INDEX NAME)





RN 852909-75-2 CAPLUS

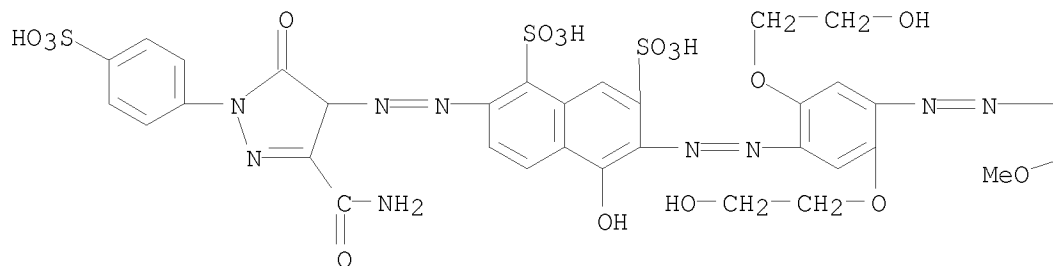
CN 2-Naphthalenesulfonic acid, 7-[2-[3-(aminocarbonyl)-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-3-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methoxy-2-sulfophenyl)diazenyl]phenyl]diazenyl]-4-hydroxy- (CA INDEX NAME)



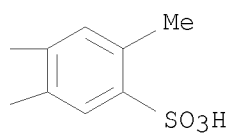
RN 852909-76-3 CAPLUS

CN 1,7-Naphthalenedisulfonic acid, 2-[2-[3-(aminocarbonyl)-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(2-methoxy-5-methyl-4-sulfophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy- (CA INDEX NAME)

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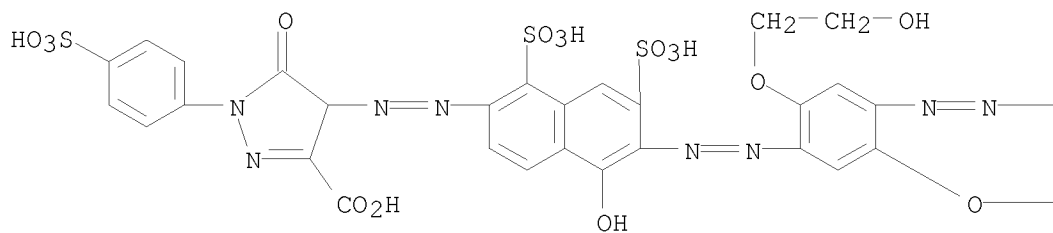


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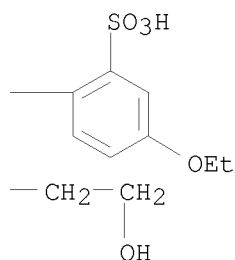


RN 852909-77-4 CAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(4-ethoxy-2-sulphophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulphophenyl)- (CA INDEX NAME)

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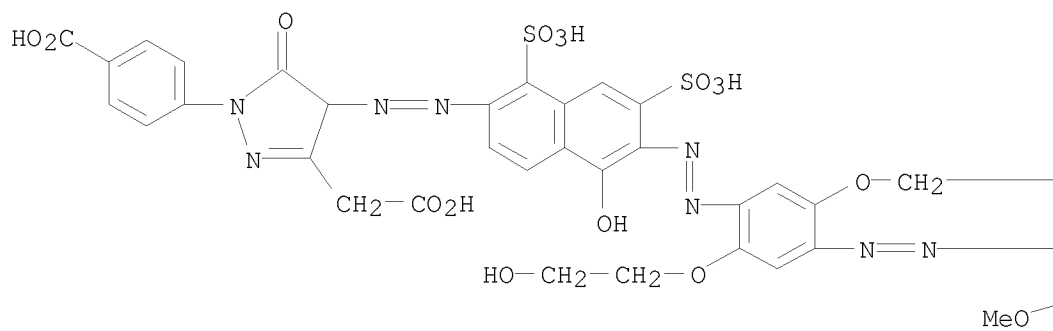


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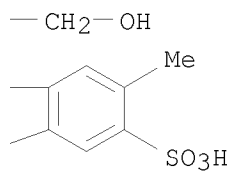


RN 852909-78-5 CAPLUS
 CN 1H-Pyrazole-3-acetic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(2-methoxy-5-methyl-4-sulphophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-1-(4-carboxyphenyl)-4,5-dihydro-5-oxo- (CA INDEX NAME)

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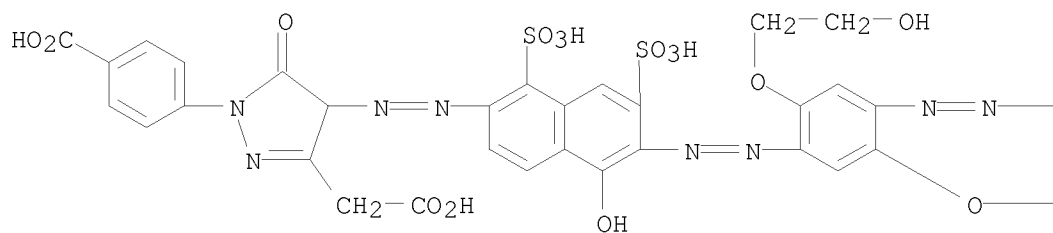


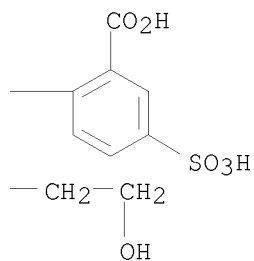
PAGE 1-B



RN 852909-79-6 CAPLUS
 CN 1H-Pyrazole-3-acetic acid, 1-(4-carboxyphenyl)-4-[2-[6-[2-[4-[2-(2-carboxy-4-sulfophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo- (CA INDEX NAME)

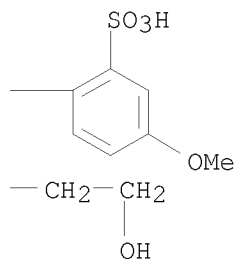
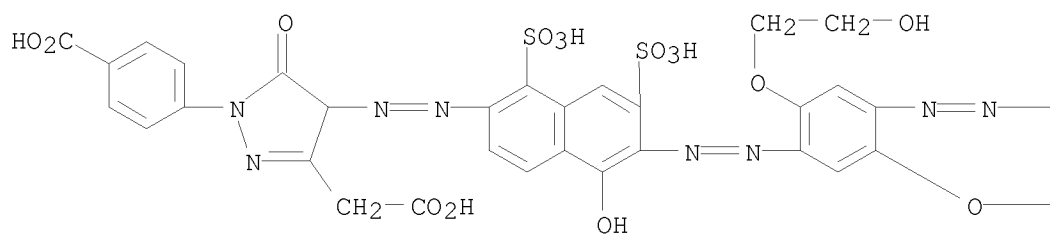
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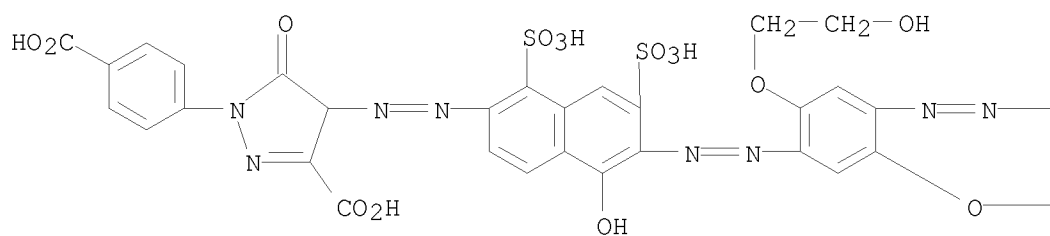
RN 852909-80-9 CAPLUS

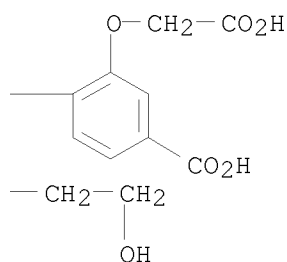
CN 1H-Pyrazole-3-acetic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-methoxy-2-sulfophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-1-(4-carboxyphenyl)-4,5-dihydro-5-oxo- (CA INDEX NAME)



RN 852909-81-0 CAPLUS

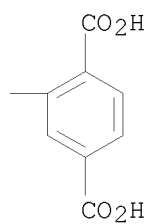
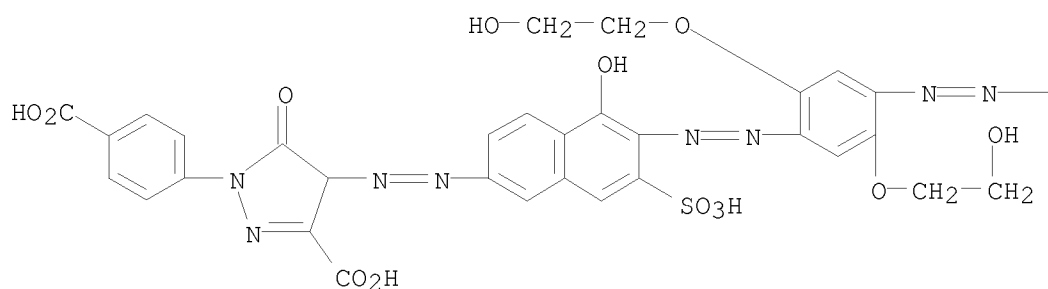
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-[4-carboxy-2-(carboxymethoxy)phenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-1-(4-carboxyphenyl)-4,5-dihydro-5-oxo- (CA INDEX NAME)





RN 852909-82-1 CAPLUS

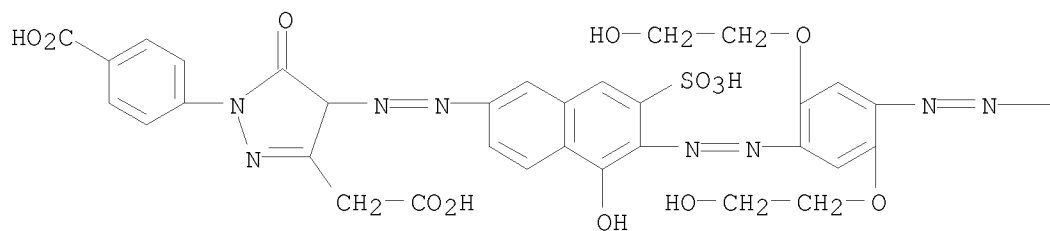
CN 1,4-Benzenedicarboxylic acid, 2-[2-[4-[2-[6-[2-[3-carboxy-1-(4-carboxyphenyl)-4,5-dihydro-5-oxo-1H-pyrazol-4-yl]diazenyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-
(CA INDEX NAME)



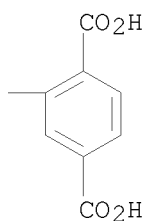
RN 852909-83-2 CAPLUS

CN 1,4-Benzenedicarboxylic acid, 2-[2-[4-[2-[6-[2-[3-(carboxymethyl)-1-(4-carboxyphenyl)-4,5-dihydro-5-oxo-1H-pyrazol-4-yl]diazenyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-
(CA INDEX NAME)

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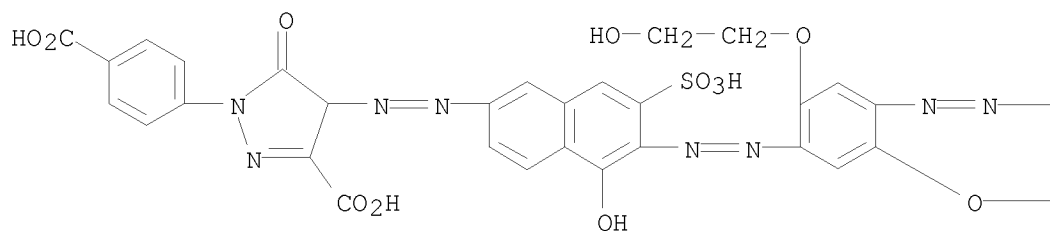


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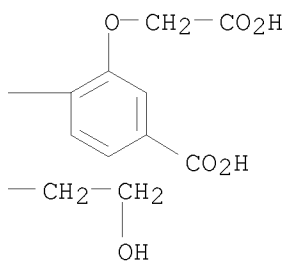


RN 852909-84-3 CAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(4-carboxy-2-(carboxymethoxy)phenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-1-(4-carboxyphenyl)-4,5-dihydro-5-oxo- (CA INDEX NAME)

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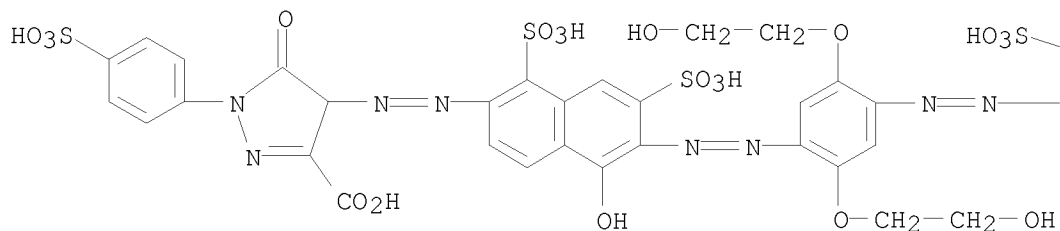


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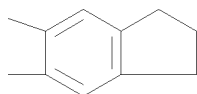


RN 852909-85-4 CAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(2,3-dihydro-6-sulfo-1H-inden-5-yl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

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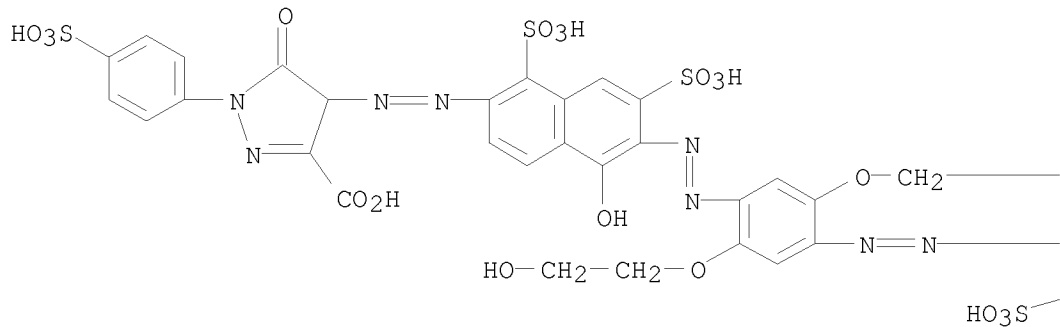


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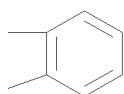
RN 852909-86-5 CAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(2-sulfophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

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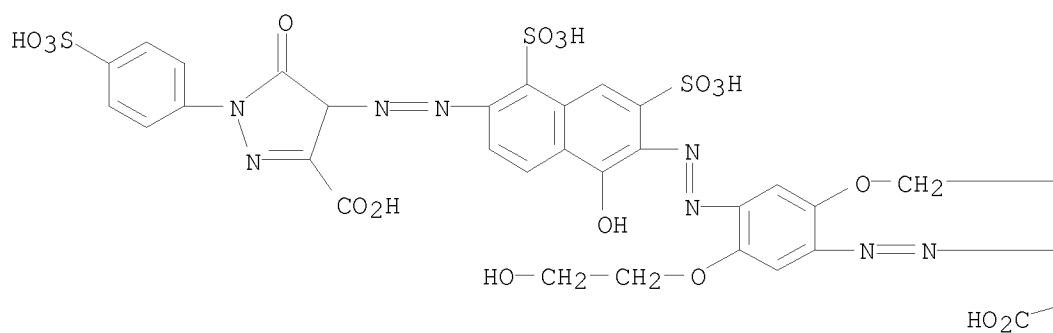
-CH₂-OH



RN 852909-87-6 CAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(2-carboxyphenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-

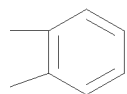
naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

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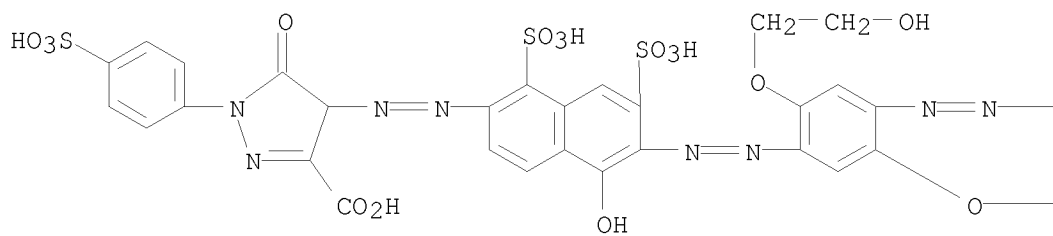
PAGE 1-B

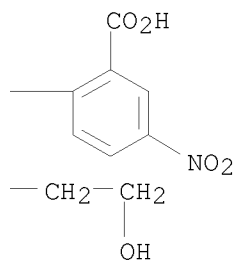
—CH₂—OH



RN 852909-88-7 CAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(2-carboxy-4-nitrophenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

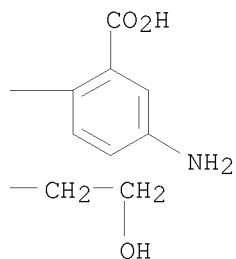
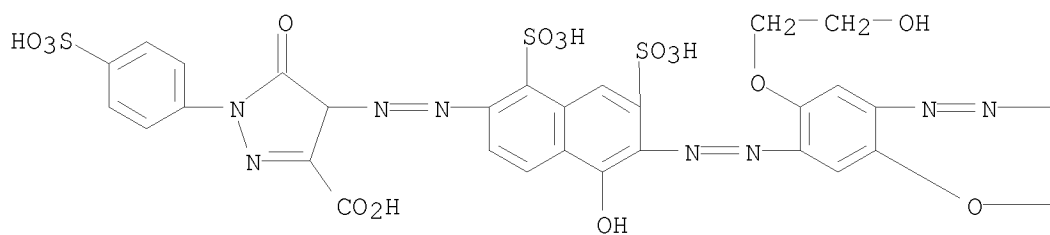
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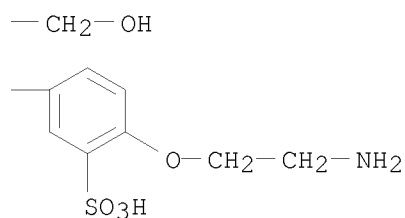
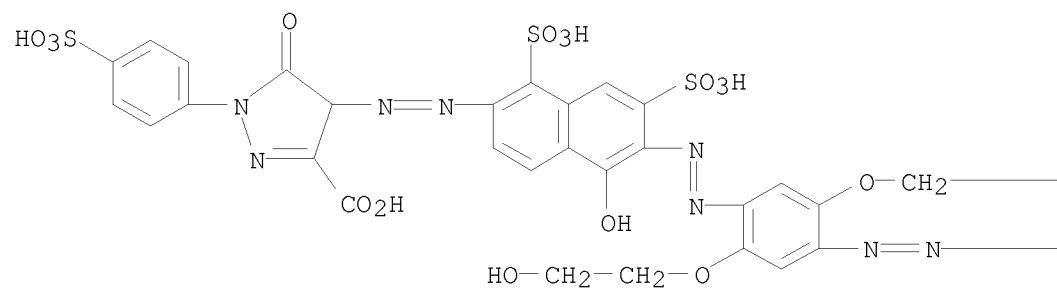
RN 852909-89-8 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(4-amino-2-carboxyphenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-(CA INDEX NAME)



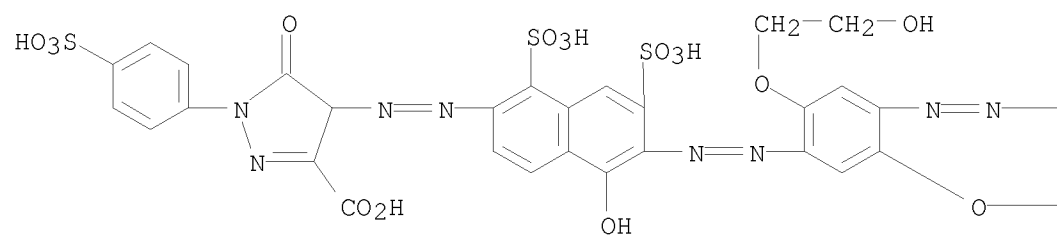
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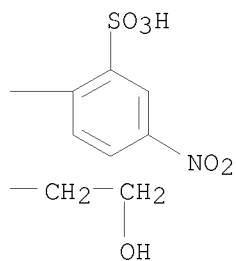
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-[4-(2-aminoethoxy)-3-sulfophenyl]diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-(CA INDEX NAME)



RN 852909-91-2 CAPLUS

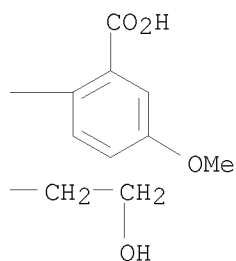
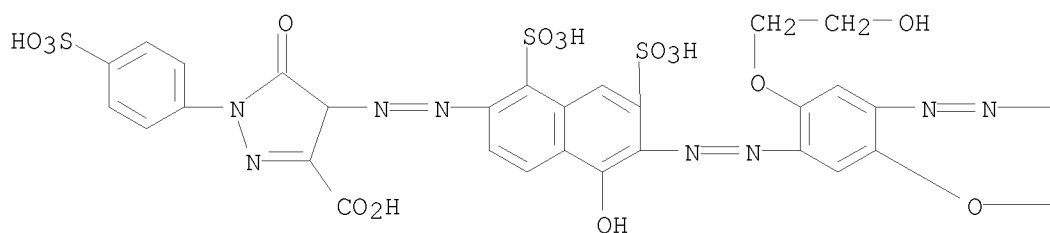
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-bis(2-hydroxyethoxy)-4-[2-(4-nitro-2-sulfo-phenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfo-phenyl)- (CA INDEX NAME)





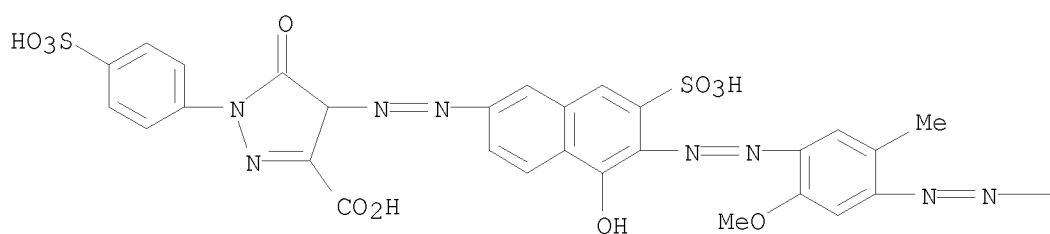
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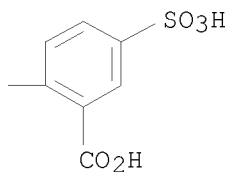
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(2-carboxy-4-methoxyphenyl)diazenyl]-2,5-bis(2-hydroxyethoxy)phenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfohenyl)-(CA INDEX NAME)



RN 852909-93-4 CAPLUS

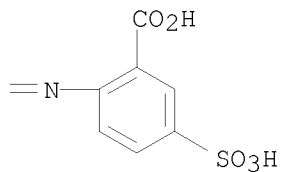
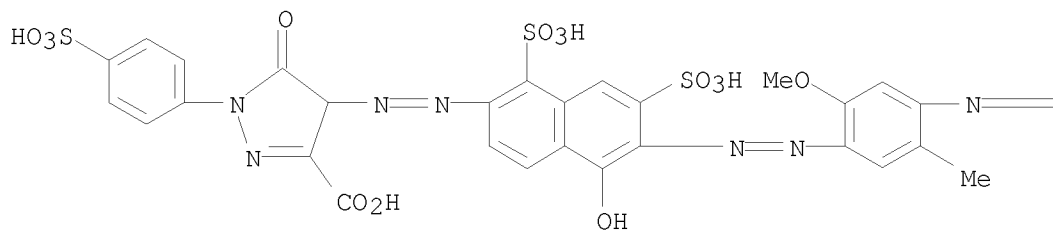
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(2-carboxy-4-sulfohenyl)diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfohenyl)-(CA INDEX NAME)





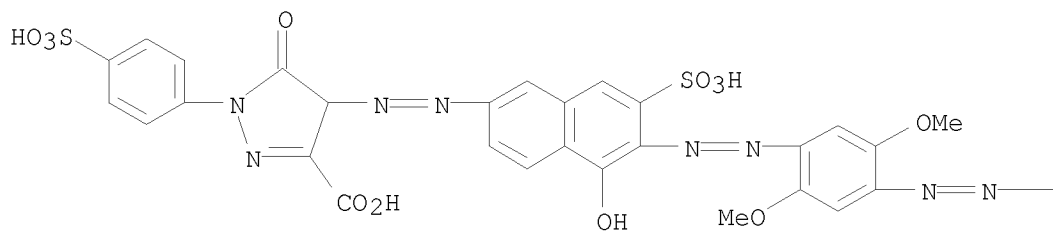
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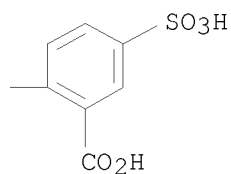
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(2-carboxy-4-sulfophenyl)diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)



RN 852909-95-6 CAPLUS

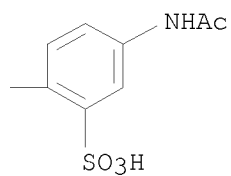
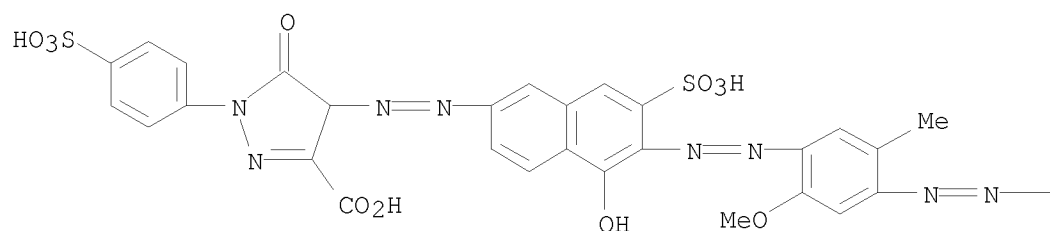
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(2-carboxy-4-sulfophenyl)diazenyl]-2,5-dimethoxyphenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)





RN 852909-96-7 CAPLUS

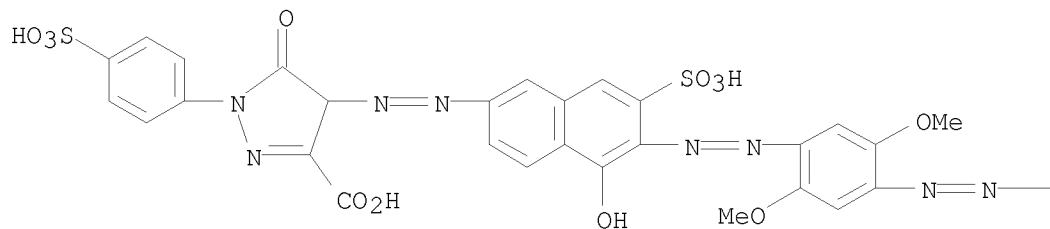
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-[4-(acetylamino)-2-sulfophenyl]diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)



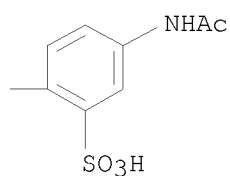
RN 852909-97-8 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-[4-(acetylamino)-2-sulfophenyl]diazenyl]-2,5-dimethoxyphenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

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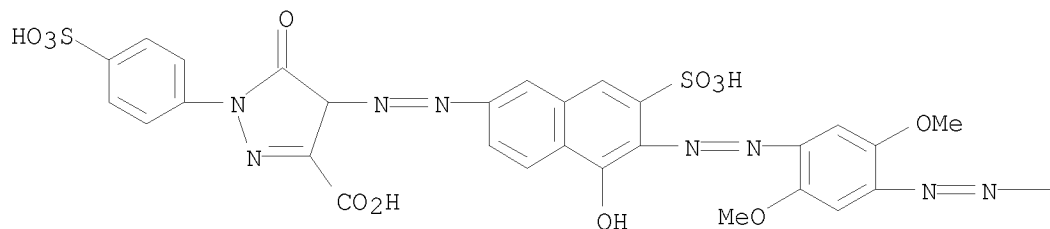


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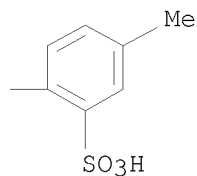


RN 852909-98-9 CAPLUS
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-dimethoxy-4-[2-(4-methyl-2-sulfo-1H-pyrazol-3-yl)diazenyl]phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfo-phenyl)- (CA INDEX NAME)

PAGE 1-A



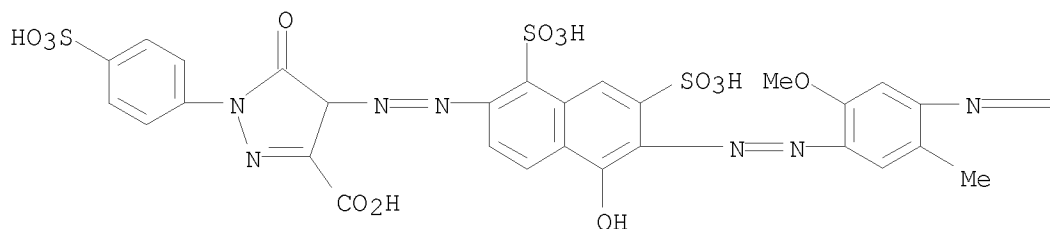
PAGE 1-B



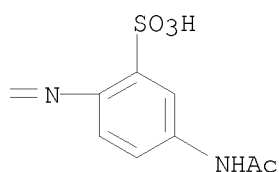
RN 852909-99-0 CAPLUS
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INDEX NAME)

PAGE 1-A

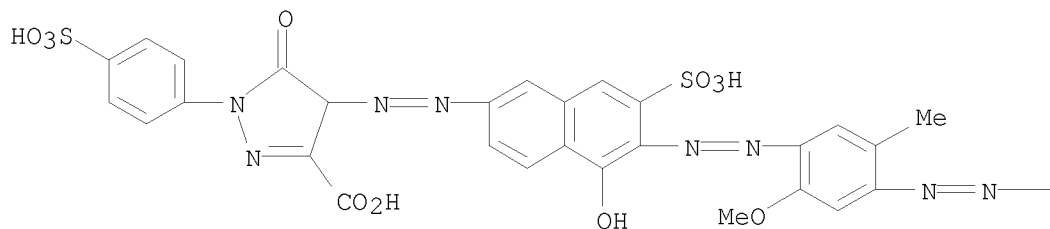


PAGE 1-B

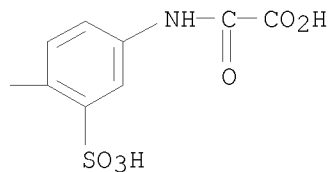


RN 852910-00-0 CAPLUS
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PAGE 1-A



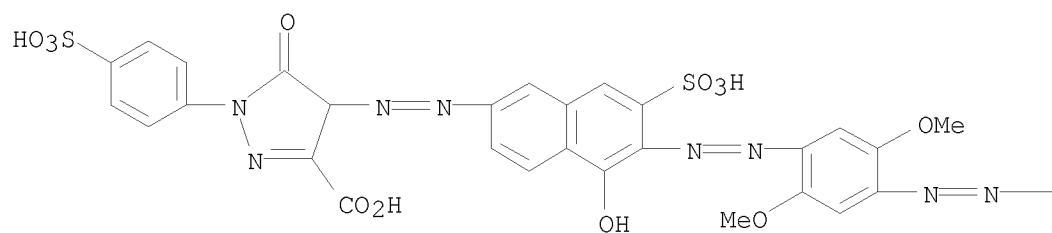
PAGE 1-B



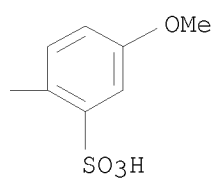
RN 852910-01-1 CAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[2,5-dimethoxy-4-[2-(4-methoxy-2-sulfophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

NAME)

PAGE 1-A

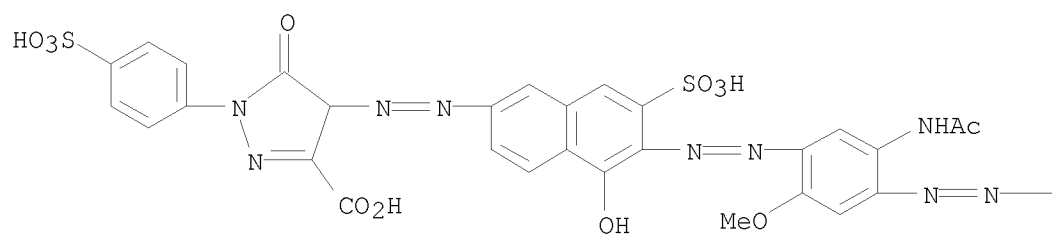


PAGE 1-B

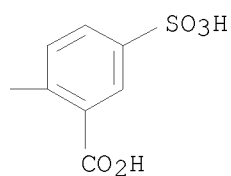


RN 852910-02-2 CAPLUS
CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[5-(acetylamino)-4-[2-(2-carboxy-4-sulfo-phenyl)]diazenyl]-2-methoxyphenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfo-phenyl)- (CA INDEX NAME)

PAGE 1-A



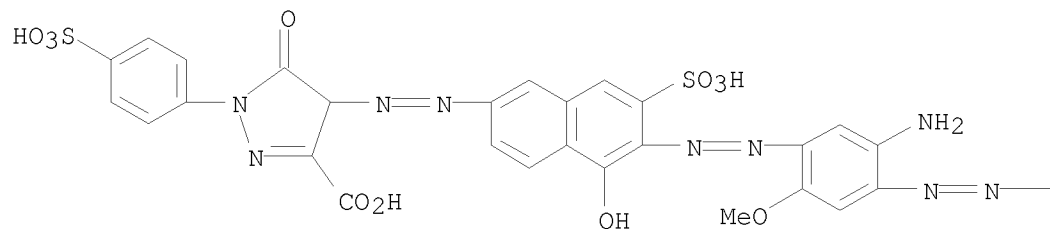
PAGE 1-B



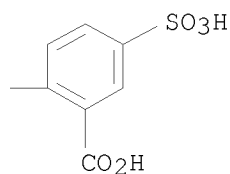
RN 852910-03-3 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[5-amino-4-[2-(2-carboxy-4-sulfophenyl)diazenyl]-2-methoxyphenyl]diazenyl]-5-hydroxy-7-sulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

PAGE 1-A



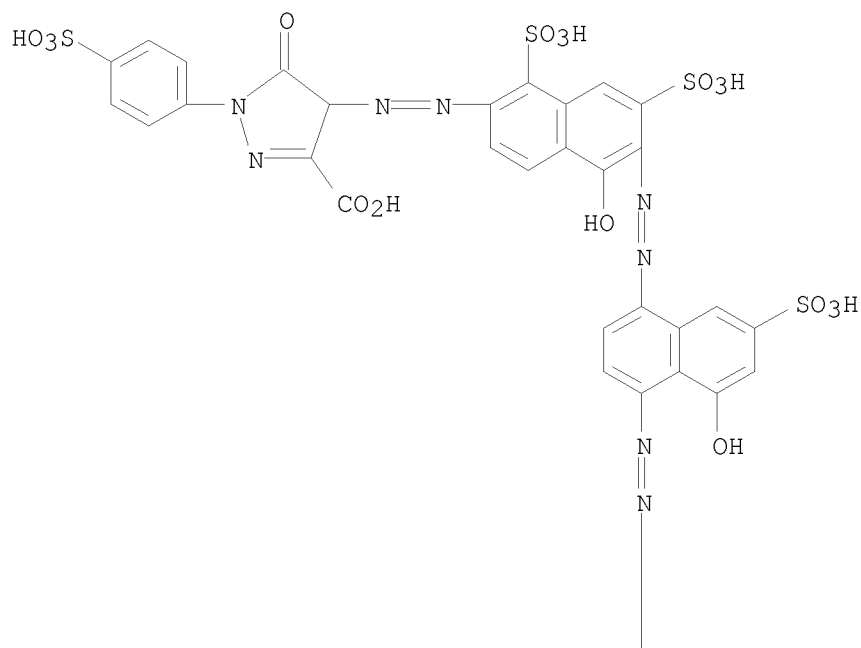
PAGE 1-B



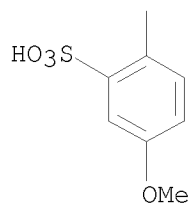
RN 852910-04-4 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-4-[2-[5-hydroxy-6-[2-[5-hydroxy-4-[2-(4-methoxy-2-sulfophenyl)diazenyl]-7-sulfo-1-naphthalenyl]diazenyl]-1,7-disulfo-2-naphthalenyl]diazenyl]-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

PAGE 1-A

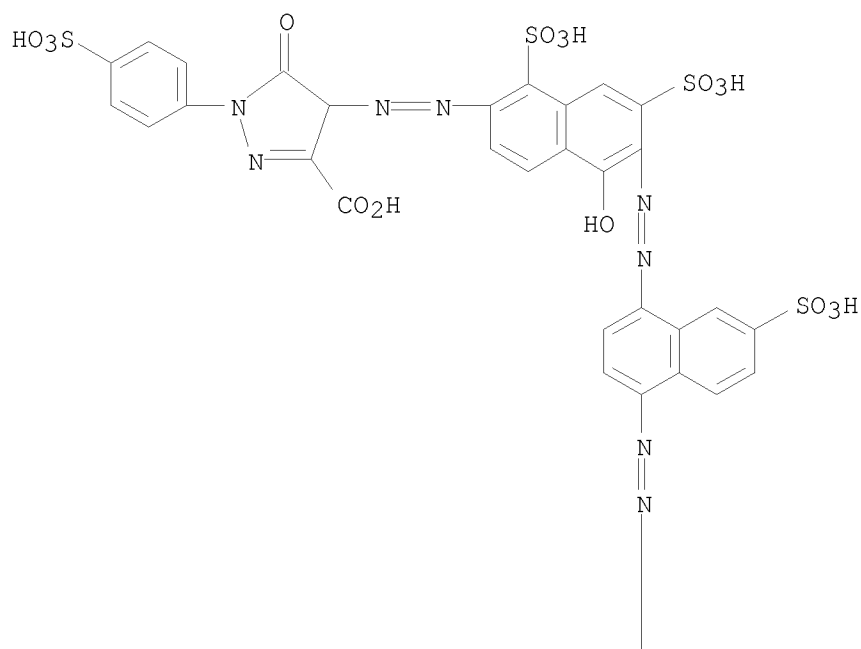


PAGE 2-A

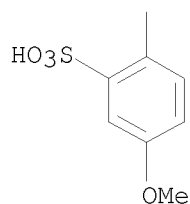


RN 852910-05-5 CAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-4-[2-[5-hydroxy-6-[2-[4-[2-(4-methoxy-2-sulfophenyl)diazenyl]-7-sulfo-1-naphthalenyl]diazenyl]-1,7-disulfo-2-naphthalenyl]diazenyl]-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

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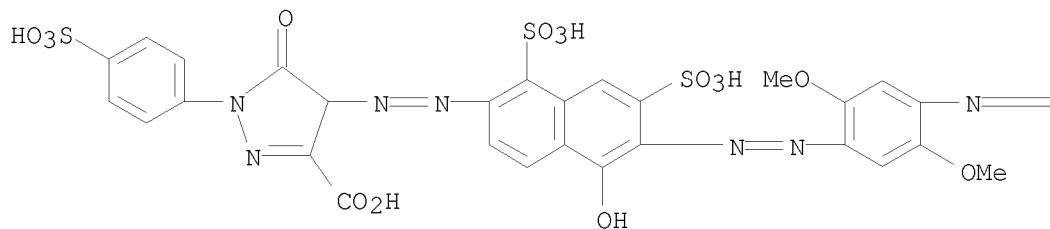


PAGE 2-A

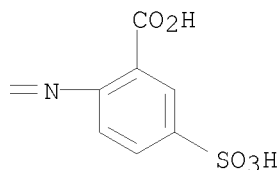


RN 852910-06-6 CAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[6-[2-[4-[2-(2-carboxy-4-sulfophenyl)diazenyl]-2,5-dimethoxyphenyl]diazenyl]-5-hydroxy-1,7-disulfo-2-naphthalenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

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PAGE 1-B



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:305188 CAPLUS

DOCUMENT NUMBER: 140:322867

TITLE: Disazo dyes, inks and ink-jet recording method

INVENTOR(S): Mikoshiba, Hisashi; Omatsu, Tadashi; Suzuki, Makoto; Matsuoka, Koushin; Motoki, Masuji

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 83 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

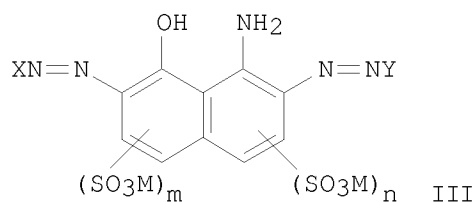
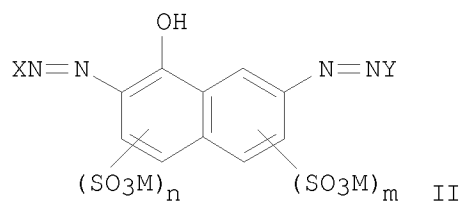
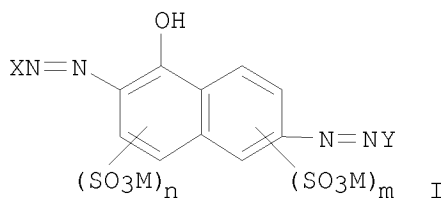
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1408091	A1	20040414	EP 2003-29417	20020130
EP 1408091	B1	20050921		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
JP 2002265809	A	20020918	JP 2001-69497	20010312
JP 4119621	B2	20080716		
JP 2002302619	A	20021018	JP 2002-5043	20020111
JP 4136375	B2	20080820		
JP 2002327131	A	20021115	JP 2002-5044	20020111
JP 4136376	B2	20080820		
EP 1229083	A2	20020807	EP 2002-2270	20020130
EP 1229083	A3	20020821		
EP 1229083	B1	20040915		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 20030195342	A1	20031016	US 2003-349978	20030124
US 6903198	B2	20050607		
US 20030226221	A1	20031211	US 2003-350083	20030124
US 6756488	B2	20040629		

PRIORITY APPLN. INFO.:

JP 2001-24470	A	20010131
JP 2001-54764	A	20010228
JP 2001-69497	A	20010312
JP 2002-5043	A	20020111
JP 2002-5044	A	20020111
EP 2002-2270	A3	20020130
US 2002-59380	A3	20020131

OTHER SOURCE(S): MARPAT 140:322867
GI



AB Disclosed are black disazo dyes I, II, and III (m, n = 0, 1; M = H, monovalent ion; X, Y = heterocyclic group). The dyes are suitable for water-based jet-printing inks with improved application and image properties. In an example, J-acid was diazotized and coupled with a pyrazole derivative to give a monoazo compound which was then coupled with diazotized 8-aminoquinoline to form a black disazo dye.

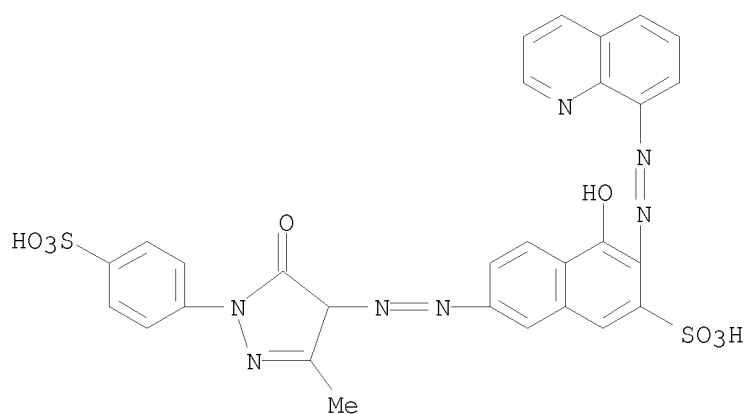
IT 444996-96-7P

RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(production of black disazo dyes for water-based jet-printing inks)

RN 444996-96-7 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-4-hydroxy-3-[2-(8-quinolinyl)diazenyl]- (CA INDEX NAME)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:591733 CAPLUS

DOCUMENT NUMBER: 137:141846

TITLE: Disazo dyes and jet printing inks containing them

INVENTOR(S): Mikoshiba, Hisashi; Omatsu, Tadashi; Suzuki, Makoto; Matsuoka, Koushin; Motoki, Masuji

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 78 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1229083	A2	20020807	EP 2002-2270	20020130
EP 1229083	A3	20020821		
EP 1229083	B1	20040915		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2002265809	A	20020918	JP 2001-69497	20010312
JP 4119621	B2	20080716		
JP 2002302619	A	20021018	JP 2002-5043	20020111
JP 4136375	B2	20080820		
JP 2002327131	A	20021115	JP 2002-5044	20020111
JP 4136376	B2	20080820		
EP 1408091	A1	20040414	EP 2003-29417	20020130
EP 1408091	B1	20050921		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
AT 276320	T	20041015	AT 2002-2270	20020130
AT 305025	T	20051015	AT 2003-29417	20020130
US 20020170126	A1	20021121	US 2002-59380	20020131
US 6548649	B2	20030415		
US 20030195342	A1	20031016	US 2003-349978	20030124
US 6903198	B2	20050607		
US 20030226221	A1	20031211	US 2003-350083	20030124
US 6756488	B2	20040629		

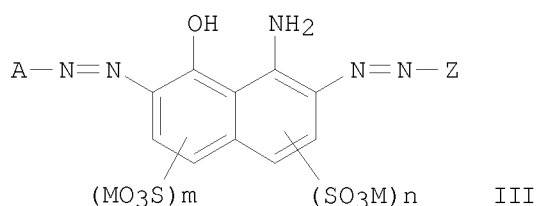
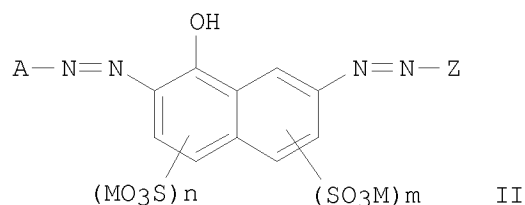
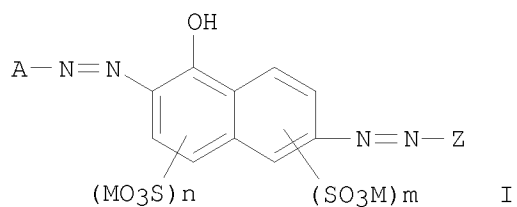
PRIORITY APPLN. INFO.:

JP 2001-24470	A	20010131
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JP 2001-69497	A	20010312
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EP 2002-2270
US 2002-59380

A3 20020130
A3 20020131

GI



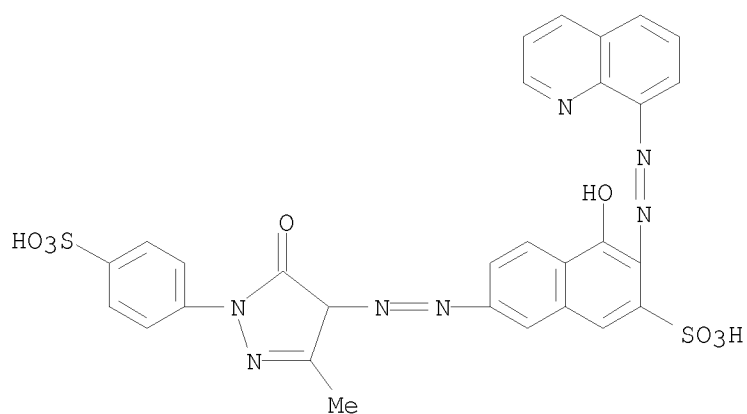
AB Disazo dyes (I, II, III; A, Z = monovalent heterocyclic group bonded to an azo group by a carbon atom of the monovalent heterocyclic group; m, n = 0, 1; M = H, monovalent pos. ion) are provided for use in jet-printing inks. I-III are black dyes with excellent fastness and application properties. In an example, a black dye was prepared using J-acid as the first diazo component, p-(5-hydroxy-3-methyl-1-pyrazolyl)benzenesulfonic acid as the coupling component, and 8-aminoquinoline as the second diazo component.

IT 444996-96-7P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dye; production of black disazo dyes for jet printing inks)

RN 444996-96-7 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-4-hydroxy-3-[2-(8-quinolinyl)diazenyl]- (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1996:404717 CAPLUS

DOCUMENT NUMBER: 125:60950

ORIGINAL REFERENCE NO.: 125:11695a,11698a

TITLE: Reactive azo dyes, their preparation and use

INVENTOR(S): Deitz, Rolf; Mueller, Bernhard; Tzikas, Athanassios

PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.

SOURCE: Eur. Pat. Appl., 27 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

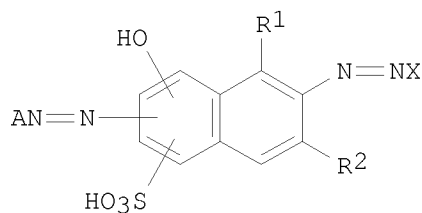
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 712905	A1	19960522	EP 1995-810702	19951108
EP 712905	B1	20010829		
R: BE, CH, DE, ES, FR, GB, IT, LI, PT				
TW 411357	B	20001111	TW 1995-84111442	19951027
ES 2161852	T3	20011216	ES 1995-810702	19951108
PT 712905	T	20020130	PT 1995-810702	19951108
CN 1130177	A	19960904	CN 1995-119286	19951115
CN 1067704	C	20010627		
US 5686584	A	19971111	US 1995-559263	19951115
JP 08209016	A	19960813	JP 1995-299594	19951117
JP 3804873	B2	20060802		
SG 49592	A1	20010116	SG 1996-442	19960125
HK 1005549	A1	20020208	HK 1998-104723	19980601
PRIORITY APPLN. INFO.:			CH 1994-3468	A 19941117
OTHER SOURCE(S):	MARPAT	125:60950		

GI



I

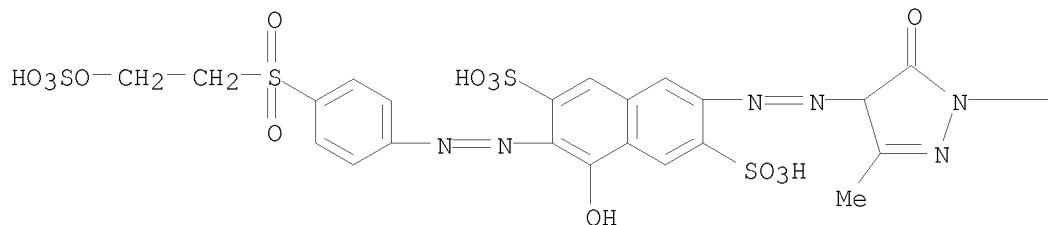
AB The dyes (I; A = fiber-reactive group; one of R1 and R2 is H and the other is sulfo; X = heterocyclic or naphthyl coupling component) are obtained from diazotized ANH2 coupled with an aminohydroxynaphthalenedisulfonic acid, the product of which is diazotized and coupled with XH. I have good fastness properties when used to dye or print cellulosics or N-containing fibrous substrates. Thus, 2-(4-aminophenylsulfonyl)ethyl H sulfate→6-amino-1-hydroxynaphthalene-3,5-disulfonic acid was obtained and diazotized and coupled with 5-carbamoyl-1-ethyl-6-hydroxy-4-methyl-2-pyridone to give a red dye which colored cellulose in fast orange shades.

IT 178397-15-4P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparation of reactive azo dyes for cellulosics)

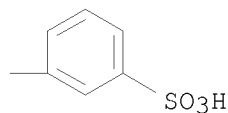
RN 178397-15-4 CAPLUS

CN 2,6-Naphthalenedisulfonic acid, 7-[2-[4,5-dihydro-3-methyl-5-oxo-1-(3-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-4-hydroxy-3-[2-[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)

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L15 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1990:38338 CAPLUS

DOCUMENT NUMBER: 112:38338

ORIGINAL REFERENCE NO.: 112:6621a,6624a

TITLE: Inks containing azo dyes with cyanopyrazolinone groups for jet printing

INVENTOR(S): Sakaeda, Takeshi; Suga, Yuko; Shirota, Katsuhiko

PATENT ASSIGNEE(S): Canon K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF

DOCUMENT TYPE: Patent

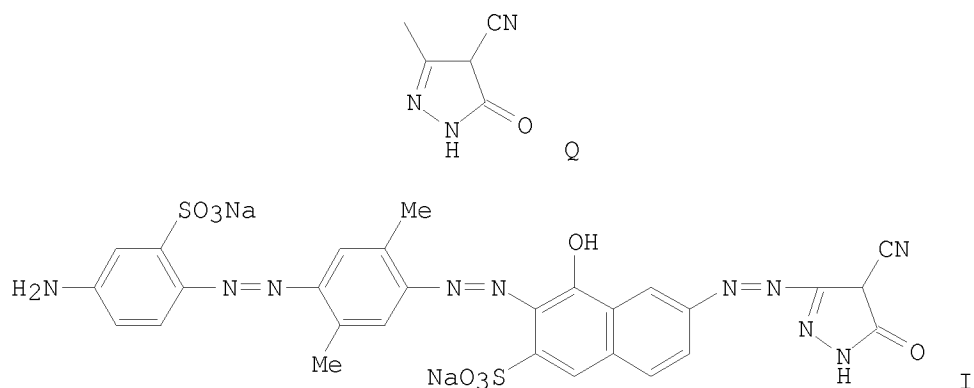
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 01135880	A	19890529	JP 1987-294035	19871124
PRIORITY APPLN. INFO.:			JP 1987-294035	19871124

GI



AB The title inks, anticlogging with good storage stability, comprise ≥ 1 of dyes containing structural unit Q in the mol. Thus, a composition of compound I 4, diethylene glycol 30, and H₂O 66% was anticlogging and storage-stable and produced light- and water-resistant prints on a variety of papers.

IT 124673-75-2

RL: USES (Uses)

(inks containing, black, for jet-printing)

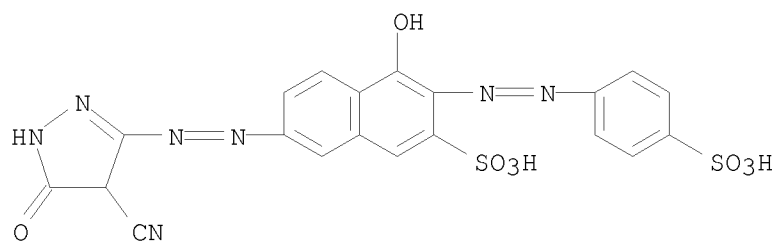
RN 124673-75-2 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-[2-(4-cyano-4,5-dihydro-5-oxo-1H-pyrazol-3-yl)diazenyl]-4-hydroxy-3-[2-(4-sulfophenyl)diazenyl]-, compd. with 2-aminoethanol (1:2) (CA INDEX NAME)

CM 1

CRN 124673-74-1

CMF C20 H13 N7 O8 S2



CM 2

CRN 141-43-5

CMF C2 H7 N O

H₂N-CH₂-CH₂-OH

L15 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1986:151000 CAPLUS

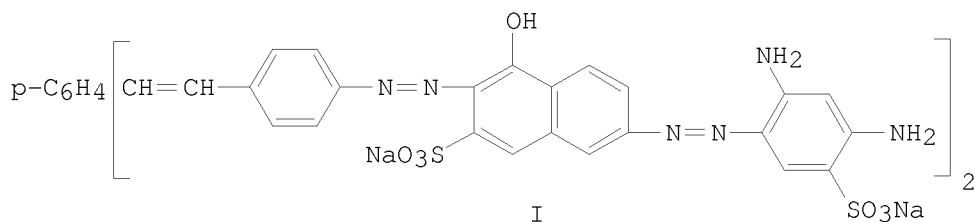
DOCUMENT NUMBER: 104:151000

ORIGINAL REFERENCE NO.: 104:23905a, 23908a

TITLE: Aqueous inks

INVENTOR(S): Shimada, Masaru; Sasaki, Masaomi; Hashimoto, Mitsuru
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
 SOURCE: Ger. Offen., 35 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3512836	A1	19851024	DE 1985-3512836	19850410
DE 3512836	C2	19890323		
JP 60215079	A	19851028	JP 1984-70135	19840410
JP 60215083	A	19851028	JP 1984-70139	19840410
US 4620875	A	19861104	US 1985-719451	19850403
PRIORITY APPLN. INFO.:			JP 1984-70135	A 19840410
			JP 1984-70139	A 19840410
OTHER SOURCE(S):	MARPAT	104:151000		
GI				



AB Aqueous inks, especially black inks for jet printing, contain 0.5-30 parts stilbene

structure-containing polyazo dye and 5-30 parts humectants. Thus, an ink containing the azo dye I 3.0, glycerol 5.0, diethylene glycol 15.0, Na dehydroacetate 0.3, and H2O 76.7% had pH 10.1, surface tension 55.0 dyn/cm, viscosity 1.95 mPa-s at 25°, and good light and water resistance.

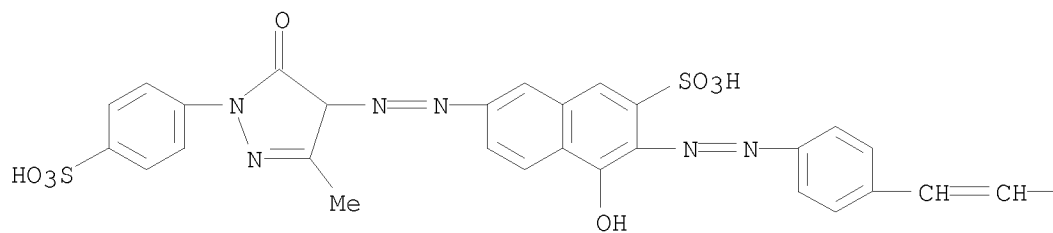
IT 101507-75-9

RL: USES (Uses)

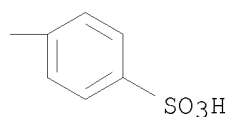
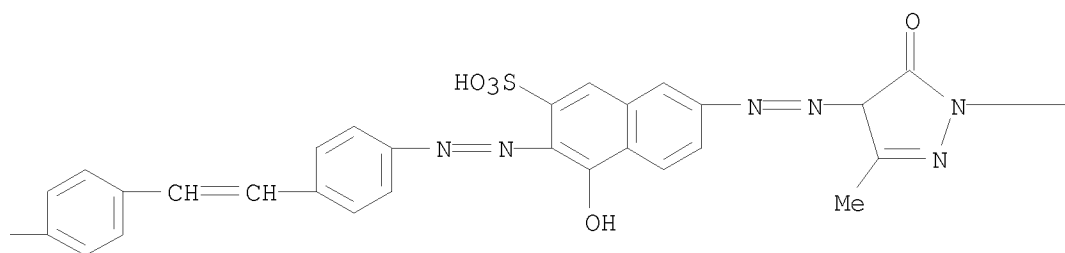
(inks containing, for jet printing)

RN 101507-75-9 CAPLUS

CN 2-Naphthalenesulfonic acid, 3,3'-[1,4-phenylenebis(2,1-ethenediyl-4,1-phenyleneazo)]bis[7-[[4,5-dihydro-3-methyl-5-oxo-1-(4-sulfohenyl)-1H-pyrazol-4-yl]azo]-4-hydroxy-, tetrasodium salt (9CI) (CA INDEX NAME)



● 4 Na



L15 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1969:69287 CAPLUS
 DOCUMENT NUMBER: 70:69287
 ORIGINAL REFERENCE NO.: 70:12997a,13000a
 TITLE: Metallized azo dyes
 INVENTOR(S): Dehnert, Johannes
 PATENT ASSIGNEE(S): Badische Anilin- & Soda-Fabrik AG
 SOURCE: Fr., 6 pp.
 CODEN: FRXXAK
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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FR 1508805		19680105	FR 1967-92215	19670124
DE 1544393			DE	
GB 1164329			GB	

GI For diagram(s), see printed CA Issue.

AB Metal complexes of azo compds. of the general structures I (X or Y = Q) and II are dyes for wool; by the process of Fr. 1,318,627 and Fr. Addition 83,225, they can also be applied to cotton. Thus, 22.35 parts 2,5,3-HO(Cl)(HO3S)C6H2NH2 was diazotized and coupled with 30 parts 1,8,3,6-H2N(HO)C10H4(SO3H)2 (III), the product precipitated with 80 vols.

concentrated

HCl and 200 vols. saturated aqueous NaCl, filtered, the residue dissolved in 500

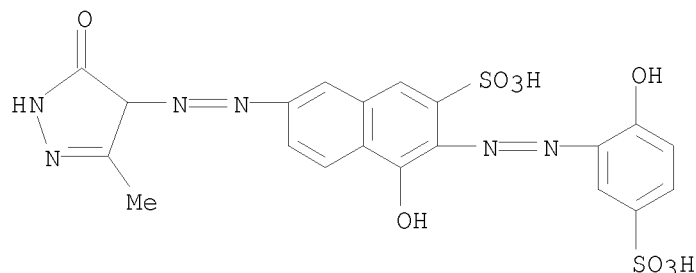
parts 1% NaOH, the aminoazo compound diazotized and coupled with 11 parts 3-methyl-5-pyrazolone and the pH adjusted to 6 with 200 vols. 10% NaOH give I (R = Cl, X = Q, Y = H, Z = SO3H) (IV), a black-brown powder, soluble in hot H2O (red brown), which dyed wool olive shades by an afterchrome procedure. A mixture of III, 750 parts H2O, and 36 vols. 25% aqueous NH3 was heated at 50-60° with stirring, treated with a solution of 27 parts CuSO4.5H2O in 150 parts H2O and 60 vols. 25% aqueous NH3, stirred at 50-60° for 2 hrs., and treated with 2000 vols. Me2CO to precipitate the Cu complex of IV, a dark powder, violet in H2O, which dyed cellulose fibers gray. The Co complex of IV, olive brown in H2O, dyed cotton brownish gray. Similarly, metal complexes of I (R = SO2NH2) were prepared [X, Y, Z, metal, color in H2O, and shade (fiber) given]: Q, H, SO3H (V), -, red-brown, greenish gray(wool) (after chroming); Q, H, SO3H, Cr, -, greenish gray (cotton); Q, H, SO3H, Co, violet brown, grayish brown (cotton); H, Q, H, -, blue, blue gray (wool) (by afterchroming); H, Q, H, Cr, -, blue gray (cotton); H, Q, H, Co, violet, gray violet (cotton). The mixed Cr complex of V and 2,5,1-H2N(HO3S)C10H5N:NC6H3(OH)NO2-2,4 (VI) was a black powder, dull green in H2O, green gray on cotton. 3,4,5-Q(HO)(O2N)C6H2SO3H, reduced with Na2S, diazotized, and coupled with 2-ClOH7OH gave II (R = 2,1-HOC10H7) (VII), blue in H2O, gray on wool by afterchroming (Cr complex gray violet on cotton). The mixed Cr complex of VI and VII was blue in H2O, blue gray on cotton. Similarly were prepared the Co complexes of II (RH = III), blue in H2O, gray on cotton, and of II (RN:N = Q), bluish red in H2O, bordeaux on cotton.

IT 21592-21-2DP, 2-Naphthalenesulfonic acid, 4-hydroxy-3-[(2-hydroxy-5-sulfophenyl)azo]-7-[(3-methyl-5-oxo-2-pyrazolin-4-yl)azo]-, cobalt complexes 21592-21-2P

RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)

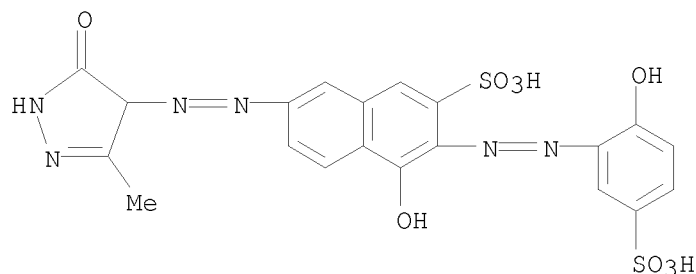
RN 21592-21-2 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-[2-(4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-4-yl)diazenyl]-4-hydroxy-3-[2-(2-hydroxy-5-sulfophenyl)diazenyl]- (CA INDEX NAME)



RN 21592-21-2 CAPLUS

CN 2-Naphthalenesulfonic acid, 7-[2-(4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-4-yl)diazenyl]-4-hydroxy-3-[2-(2-hydroxy-5-sulfophenyl)diazenyl]- (CA INDEX NAME)



L15 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1964:462105 CAPLUS
 DOCUMENT NUMBER: 61:62105
 ORIGINAL REFERENCE NO.: 61:10810c-h,10811a-b
 TITLE: Metalized dis- and trisazo reactive dyes
 INVENTOR(S): Andrew, Herbert F.; Baker, Ronald
 PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd.
 SOURCE: 20 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 951471		19640304	GB 1961-19080	19610526
US 3207746		19650921	US 1962-194173	19620511
PRIORITY APPLN. INFO.:			GB	19610526

GI For diagram(s), see printed CA Issue.

AB The title compds. contain 0.5, 1, or 2 metal atoms per mol. and are less substantive than some polyazo direct dyes thereby reducing the staining of adjacent undyed or different colored areas during washing of cellulosic textiles dyed with the compds. Cu or Co complexes were prepared from compds. of the general formula I, where A is H or NaO₃S, and X is either (1) a triazinylamino group containing two Cl substituents or one Cl and one sulfonated anilino group, or (2) a 1-phenyl-5-pyrazolonylazo group bearing a triazinylamino group substituted as under 1. Thus, 2,5-(HO₃S)₂C₆H₃NH₂ (II) was diazotized and coupled in alkaline medium with 1,2,5,7-Cl₂(H₂N)(HO)C₁₀H₄SO₃H (III) and the product diazotized and coupled in alkaline medium with 2,5,1,7-H₂N(HO)C₁₀H₄(SO₃H)₂ (IV), yielding a disazo compound, which was copperized by boiling for .apprx.1 hr. in an aqueous solution

containing 2% NaOH, 2% glycerol, and 1.5 moles CuSO₄, the Cl group being replaced by an OH group under these conditions. A solution containing the product 10.2 and H₂O 200 was added gradually to a suspension of cyanuric chloride (V) 2.22, H₂O 27, and ice 50 parts at 0-5° and pH 6.5-7.0, the pH being maintained by addition of Na₂CO₃ solution 3-NaO₃SC₆H₃NEt₂ (VI) 4.7 and NaHSO₄ 0.3 were added, the solution poured into Me₂CO, precipitating I (A = NaO₃S, X = dichlorotriazinylamino), which was filtered, mixed with VI 1.88 and NaHSO₄ 0.12 part and dried. It dyed cotton light- and wetfast green shades. Similarly other I were prepared (reactants, metal, and shade given): (II → III) → IV, V, 3-NaO₃SC₆H₄NH₂ (VII), Co, blue (the Cu complex of (II → III) → IV was prepared, demetalized by stirring 18 hrs. at 20-5° in concentrated HCl, and treated with neutral aqueous CoCl₂ at 95° for 18 hrs.); [(II → III) → IV] → 1-(2-methyl-3-amino-5-sulfophenyl)-3-methyl-5-pyrazolone (VIII), V, 3,5-(HO₃S)₂C₆H₈NH₂ (IX), Cu, yellowish green; [(II → III) → 2,5,7-H₂N(HO)C₁₀H₅SO₃H (X)] → VIII, V, IX, Cu, green. Either 3,4-HO₃S(H₂N)C₆H₄NHAc or the 4,3-isomer was coupled with III and the products coupled with 3,6,2- or 6,8,2(HO₃S)₂C₁₀H₅OH, the AcNH group

being deacetylated and the Cl group being replaced by OH during subsequent alkaline metalization. The Cu or Ni complexes of XI, where Y or Z is NaO₃S, the other being H, were either (1) condensed with V, further condensed with VII, and treated with pyridine (XII) or mercaptobenzothiazole (XIII) or (2) coupled with a pyrazolone compound containing a 1-(3-aminophenyl) group, condensed with V, and further condensed with IX. Dyes prepared from the XI type intermediate were (reactants, metal, and shade given):

[2,5-HO₃S(AcNH)C₆H₃NH₂ (XIV) → III] → 6,8,2-(HO₃S)2C₁₀H₅OH (XV), V, Ni, blue (prepared from demetalized Cu complex); (XIV → III) → XV, V, VII, treated with XII, Cu, green; [2,4-HO₃S(AcNH)C₆H₃NH₂ (XVI) → III] → 3,6,2-(HO₃S)2C₁₀H₅OH (XVII), V, VII, treated with XIII, Cu, bluish green; [(XIV → III) → XV] → VIII, V, Cu, yellowish green; [(XIV → III) → XV] → 1-(3-aminophenyl)-5-pyrazolone-3-carboxylic acid, V, IX, Cu, yellowish green. Other dis- and trisazo reactive dyes containing one or two chlorotriazinyl groups were prepared (reactants, metal, and shade given): [[2-HO₃SC₆H₄NH₂ (XVIII) → III] → IV] → VIII, V, 2,4-HO₂C(HO₃S)C₆H₃NH₂, Cu, yellowish green; [(XVIII → III) → IV] → VIII, V, VII, Cu, green; [[2,5-HO(HO₃S)C₆H₃NH₂ → III] → IV] → 1-(2-methyl-3-(4,6-dichlorotriazin-2-ylamino)-5-sulfophenyl)-3-methyl-5-pyrazolone, Cu (2 atoms/mol.), green; (XIV → III) → 8,5,7,1-H₂N(HO₃S)2C₁₀H₄OH, V, Cr (prepared from demetalized Cu complex), gray green; [(XIV → III) → IV, V] → 1-(3-sulfophenyl)-5-pyrazolone-3-carboxylic acid, Cu, green; (XIV → III) → IV, V, 3-HO₃SC₆H₄NHMe, V, Cu, green (bluish green before the last condensation with V):

IT 859452-14-5, 1,7-Naphthalenedisulfonic acid, 6-[[[1-chloro-5-hydroxy-6-[(2-hydroxy-5-sulfophenyl)azo]-7-sulfo-2-naphthyl]azo]-2-[[[1-[3-(4,6-dichloro-s-triazin-2-yl)-5-sulfo-o-tolyl]-3-methyl-5-oxo-2-pyrazolin-4-yl]azo]-5-hydroxy-
(reaction product with Na N,N-diethylmetanilate, Cr complex)
RN 859452-14-5 CAPLUS
CN 1,7-Naphthalenedisulfonic acid, 6-[2-[1-chloro-5-hydroxy-6-[2-(2-hydroxy-5-sulfophenyl)diazenyl]-7-sulfo-2-naphthalenyl]diazenyl]-2-[2-[1-[3-(4,6-dichloro-1,3,5-triazin-2-yl)-2-methyl-5-sulfophenyl]-4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-4-yl]diazenyl]-5-hydroxy- (CA INDEX NAME)

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